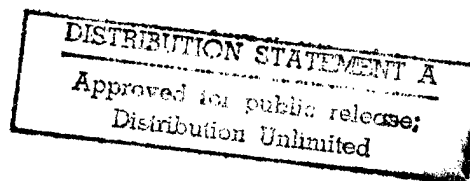


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5 July 1984



# East Europe Report

POLITICAL, SOCIOLOGICAL AND MILITARY AFFAIRS

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5 July 1984

# EAST EUROPE REPORT

## POLITICAL, SOCIOLOGICAL AND MILITARY AFFAIRS

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POLITICAL WRITER, CC MEMBER VESELIN YOSIFOV RECEIVES AWARD

Sofia LITERATURE FRONT in Bulgarian 17 May 84 p 3

[Unattributed article: "A High Distinction Awarded to Bulgarian Publicist; Veselin Yosifov Is the Bearer of the Vorovskiy Award"]

[Text] Even when it asserts something, political journalism is a militant genre. It demands of the masters of the word a talented pen, passionate thinking and a systematic defense of the positions and loyalty to the ideas of Marxism-Leninism. The great victories of communist thinking are impossible without "divinity and inspiration." The true publicist works 24 hours a day. He cannot rest, for life is always presenting us with questions which must be answered promptly, honestly and convincingly.

Such a Leninist-type publicist was Vatslav Vorovskiy, a soldier of the revolution and a propagandist of Bolshevik truth. The enemies of the young Soviet state were unable to execute his words but treacherously deprived this fiery revolutionary, diplomat and publicist of his life. However, what Vorovskiy created continues to live in today's world-wide progressive political journalism. Talent does not die when it serves progress, peace and friendship among the nations.

The 1983 Vorovskiy award for high skill in the area of international journalism and publicism was awarded to a Bulgarian person for the first time. Its bearer is Veselin Yosifov, our noted journalist, publicist and writer. He earned this high distinction, as reported by TASS for "active journalistic activities in strengthening the international democratic movement of journalists and his articles in the Bulgarian press in the defense of peace and friendship among the people and against American imperialism."

The USSR Union of Journalists awards the Vatslav Vorovskiy prize to noted Soviet and foreign publicists for their unquestionable contribution to detente and outstanding achievements in asserting the most humane ideas of our time. Veselin Yosifov, who is the chairman of the Union of Bulgarian Journalists and the chairman of the MOZh [International Organization of Journalists] Social Commission, has displayed a great deal of civic and creative activities in a very powerful series of political articles, which met with a broad public response for their militant and optimistic enthusiasm. They were not simply

viewpoints of a publicist but "prophecies" on the future of the world in which we live.

A representative of LITERATURE FRONT talked with Veselin Yosifov about his award.

[Question] Comrade Yosifov, we read reactions in the Soviet press to the high Vorovski award with which you were honored. What can you tell us about it, being the first Bulgarian publicist who was granted such recognition?

[Answer] The banner of publicism has always flown proudly in our national culture. Its only destiny from the time of the Renaissance to this day has been to fight. It has always been organically combined with the backbone of our literature and this backbone has never bent, for it was publicistic above all. Any underestimating of the publicistic genre, particularly in our time, is a profound injustice toward the real nature of literary writing. Even in poetry incredibly high publicistic peaks may be reached. The giants of Bulgarian letters, from Botev to the present, have been brilliant publicists as well.

The Vorovski prize is a manifestation of the high recognition of all creators of Bulgarian publicism. I am not displaying any modesty but my conviction that we, Bulgarian newspapermen, are contributing something to world culture.

[Question] Are the personality and cause of Vatslav Vorovski an example of such publicism today?

[Answer] Suffice it for a person to read the selected works of Vorovski to realize the high quality of his talented presence in writings in the world. He kept writing to the very last moment of his life and did not avoid the concerns and problems of his time, his people and the revolution. Every day he wrote his "working lines" which were proved by time to be high models of publicistic skill.

Bulgarian book publishing is indebted to Vorovski. We must show to our readers the richness of his passionate and outstanding personality.

5003

CSO: 2200/128

## POSITIVE COMMENT ON FORMER EDUCATIONAL SYSTEM

Sofia ANTENI in Bulgarian 23 May 84 p 1

[Unattributed article: "Az and the Alphabet"]

[Text] A long time ago a wonderful people's teacher explained to us the origin of the word Azbuka [alphabet]. It would be difficult to me today to repeat her spontaneous lecture, for she was only a graduate of the Kazanluk "teacher emporium," i.e., the Kazanluk Pedagogical School. Thousands of people's candles were lit with the sacred fire of this school and shown for decades in all parts of our homeland. They described themselves as "oil lamps" which burned at the altar of the white-painted Bulgarian schools and silently burned to the end. Although today we have a large number of pedagogical departments and higher specialized schools, it seems to me that we are still short of fuel for the "oil lamps!" The blame for this falls on all of us--managers, professors, educators, writers, publicists, journalists, musicians and painters.

But let me go back to my subject: our teacher explained to us the word azbuka as beginning with the personal pronoun "az!" The alphabet begins with every one of us. It is aimed at and serves every one of us. That is why everyone should try to be "I" rather than an impersonal unit in the classroom, whose "grades" must not be computed on the basis of an amorphous collective but as the sum total of all the still underdeveloped personalities in the classroom. It is they who are the beginning of the alphabet, for they must become individuals and citizens. They must have bright minds and pure hearts like Kiril and Metodiy and their first students and followers, and like Karavelov and Botev and, before them, Paisiy and Sofroniy Vrachanski.

I pay my respects to the memory of my and our real people's teacher Evka Marinova, who taught us almost 60 years ago, and whose boys and girls who are still alive and white-haired today have not forgotten her!

She was one of those teachers who neither had nor were awarded titles other than the love of their students. Such were then the times--no titles or distinctions other than the gratitude of the parents to the person who turned their children into people! There were no parent-teacher committees but nothing could disturb the life and daily contacts between parents and schools, for parents took off their hats when they entered the school building, even

when they were told that their children had to repeat the grade. Today there are virtually no repeaters, or if there are some they should almost be stuffed and exhibited in the school as an instructive example.

I ask myself why is it that the developing "I" should be smelted in the common bucket of "success?"

The quality of our comprehensive and increasingly more complex work in the modern Bulgarian schools should not be graded as 1, 2 or "K." Such grades and letters should be eliminated even in the area of material production. What should we do with them in the spiritual area which is mentioned in the lyrics of "March On, Reborn People" by former teacher Stoyan Mikhaylovski?

It is difficult to imagine today what the young 18 year old Khristo Bot'ov Petkov discussed in the Kalofer schoolyard. As the son of Bot'o the teacher he spoke on the occasion of Kiril and Metodiy Day.

All we know is that it was from that schoolyard that he began his road to the rocks of Okolchitsa!

In today's Bulgarian schools we read about the history of Bulgarian schools and study the biographies of the great Bulgarian teachers, from Botev to Blagoev and all others during the hard years of the struggle against fascism and capitalism.

The Bulgarian teachers have always been individuals and have always educated individuals who made Bulgarian history with their minds, their hearts and their blood. May all educational sciences develop, may new modern subjects be taught and computer centers created for training purposes and may our training and educational work improve in all directions!

But let us put before and above everything else the teacher, who knows that he is educating not collectives but individuals! Every one of our children must find his "az" ["I"] in the Bulgarian "azbuka" [alphabet]. We must seek the ways and means to cultivate this "I" as outstanding socialist individuals who are not graded with the help of letters or figures.

The high quality of Bulgarian schools begins with the high quality of Bulgarian teachers. All Bulgarian men of letters, musicians and painters and all Bulgarian revolutionaries and fighters for socialism have been teachers. There is nothing strange in the miracle of small Bulgaria which prepared our 40 years of socialism in only 6 decades.

Everyone is an "az" in the great Bulgarian Cyrillic alphabet!

5003

CSO: 2200/127

BULGARIA

CONFERENCE DISCUSSES CRIME, LAW ABUSES IN SOFIA

Sofia ANTENI in Bulgarian 23 May 84 p 1

[Report: "For Model Public Order in the Capital; Sofia City BCP Committee Plenum"]

[Text] A plenum of the Sofia City BCP Committee was held at the People's Palace of Culture on 17 May. It discussed problems of the further strengthening of socialist law and public order in the capital. Participating in the plenum were Col Gen Dimur Stoyanov, candidate member of the BCP Central Committee Politburo and minister of internal affairs, Yaroslav Radev, deputy chairman of the State Council, Col Gen Velko Palin, head of BCP Central Committee Department, Svetla Daskalova, minister of justice, Konstantin Lyutov, chief prosecutor of the Bulgarian People's Republic, and other senior party, state, public and economic officials.

The report submitted by Georgi Georgiev, first secretary of the Sofia City BCP Committee, was a profound and comprehensive assessment of the efforts to strengthen law and order in the capital. The successes achieved as a result of the active efforts of party organs and organizations, people's councils and the entire public in creating a peaceful and right environment for work and living in the capital were described.

A great contribution has been made by the personnel of the Sofia MVR City Administration in this respect. As a result of their efforts, damages to the national economy in excess of 21 million leva were prevented and so were many criminal actions. Party and economic managements were assisted in applying the new economic approach and its mechanism and the number of road accidents declined.

The conclusion expressed in the report was that under the guidance of the city party organization certain successes were achieved in the capital in the struggle against crime, violations of public order and anti-social actions. It was also noted, however, that such accomplishments cannot provide grounds for relaxation and complacency, for this would be inconsistent with the requirements of the 12th BCP Congress and the stipulation of the National Party Conference regarding high quality and efficiency. In this connection a number of worrisome examples of economic crimes and felonies, violations of public order and shortcomings in street and road traffic were listed.

PEZLAR ADDRESSES IDEOLOGICAL SEMINAR

AU121931 Bratislava PRAVDA in Slovak 8 Jun 84 pp 1, 2

["Excerpts From the Speech of Comrade Ludovit Pezlar," Central Committee Presidium member and secretary of the Slovak Communist Party (CPSL), at the all-Slovak ideological seminar entitled "The Legacy of the Uprising Continues To Be Alive and Inspiring," which was organized by the CPSL Central Committee's Department of Propaganda and Agitation for the lecturers of the party's central, regional and district committees on 7 June in Bratislava]

[Excerpts] Comrade Ludovit Pezlar began by stressing that the legacy of our people's national liberation struggle, which culminated in the Slovak National Uprising and in the May Uprising of the Czech people, commits us, above all, to firmly stand at the side of those forces which are fighting in today's world against imperialism and for progress and peace. This aspect is particularly topical at present, when--through the fault of the most reactionary forces of imperialism, headed by the U.S. Government--the international situation has enormously exacerbated, and when mankind must ward off the threat of a nuclear catastrophe.

The aim of today's "crusade" waged by imperialism against the countries of real socialism and against all that is progressive in the world is to attempt to frustrate the results of World War II, part of which are the revolutionary transformations in the world. The accompanying feature of the "psychological war" conducted by imperialism is the egregious falsification of the causes, course, and particularly the results, of World War II.

Today U.S. representatives are casting doubts on the results of the Valta and Potsdam conferences, and issuing official declarations against the "division of Europe" and of the world into "spheres of influence." This was done by Vice President George Bush last September in Vienna; and by U.S. Secretary of State George Shultz at the beginning of this year in Stockholm. They are making use of the ancient method of the creators of a war psychosis--they are casting doubts on the borders in Europe. The false attacks against the "division of Europe" are--even if they are camouflaged by peaceful intentions--an irresponsible, risky game with mankind's fate; and they are part of the "psychological game."

If we compare the development of events in Vietnam, in Cuba after World War II, or, for instance, in today's Nicaragua, with the events in Europe 40 years ago, we inevitably find that their social contents are identical: On the one side stands the upsurge of the fight for the national and social liberation of broad people's masses and the advance of the national and democratic revolution; and on the other side stands imperialism--at that time represented by Hitlerite fascism, and today mainly represented by the U.S. Government, which is striving to keep nations, states and entire continents in slavery with the aid of domestic reactionary forces. The legacy of the antifascist heritage of our people's struggle commits us firmly to stand at the side of those who are fighting against imperialism, and to grant them allround assistance and support.

The current policy of the reactionary forces of imperialism is following in the steps of fascist aggressors from the period of World War II. The U.S. Government is waging an undeclared war against the people of Afghanistan and Nicaragua; its troops took part in the aggression against the Palestinian people, they insidiously invaded Grenada, and together with their allies they are creating new hotbeds of tension in the world and preparing a nuclear strike against the countries of the world socialist community. Not even the declarations made by the present U.S. President Reagan on a "crusade" against communism, which will allegedly end on the refuse dump of history, are original; they also stem from the ideological arsenal of fascist bosses. Just as they, Reagan also regards every national liberation movement as the result of communists' activity; and in the peoples' ancient longing for a national and social liberation he sees the "hand of Moscow." He, too, is striving to slap together a kind of anticommunist alliance--something like the anti-Comintern Pact. Like the Fascist statesmen did in the past, he, too, is justifying insane armament, the creation of hotbeds of tension in the world, as well as open aggression, by speaking the unavailability of fighting communism. However, it was always those who strove to bar progress that ended on the refuse dump of history. The modern crusaders should not forget this lesson. Today Reagan's rhetorics have changed; in the present pre-election period he is no longer voicing threats, he is speaking of peace, he is appealing for negotiations. But this cannot confuse anybody. Hitler, too, used to speak of peace, while in reality purposefully preparing for war. The insane armament which the U.S. Government continues clearly testifies that its goals have not changed. It is striving to acquire military supremacy and it is preparing a nuclear confrontation.

In the next part of his speech Comrade Ludovit Pezlar stated that the Slovak National Uprising has taken its place in the history of World War II as a small nation's emphatic contribution to its own freedom and to the freedom of other nations--a contribution to the war effort of the antifascist coalition, to the defeat of Nazism and of its allies.

In the Fifth Central Committee of the party, an extraordinary role was played by Comrade Gustav Husak who--as contemporaries affirm--became the soul of all political-organizational work during the days of the uprising. In that complicated period his talent a statesman, his extraordinary organizational talents, his theoretical erudition, his high working energy, and his loyalty to the principles of Marxism-Leninism were fully manifested.

The historic legacy of the national-liberation struggle, as well as the legacy of the period of building socialism commit us, Comrade Ludovit Pezlar continued, to consistently fulfill the strategic line of building developed socialism, which was adopted by the 14th Congress and confirmed by the 15th and 16th CPCZ Congress. The program of the 16th CPCZ Congress represents the fulfillment of this historic legacy under new conditions. Our present struggle for a high efficiency of social production and for a high quality of all work, for an all-round intensification of the national economy; this struggle is a direct continuation of the building efforts of preceding generations. We draw our strength and our resolve in resolving the current exacting tasks from the ideals form which our liberty and our socialist present have been born.

Comrade Ludovit Pezlar then underscored the extremely topical and inspiring legacy of the glorious days of our national-liberation fight for the ideological and mass-political work of the party, the state bodies, and of social organizations.

The rearing of a new, socialist man, a conscious builder of developed socialism--one of the most important tasks of the system of ideological work--is impossible without a broad utilization of progressive revolutionary traditions. To underestimate them would inevitably lead to the disruption of generational continuity. Through traditions we transfer material and spiritual values from one generation to the next. Their action significance lies in their being an appeal to improve the heritage, an appeal for creative feats on the basis of the results and of the verified experience of revolutionary activity of the preceding generation.

Under our conditions, the Great October Socialist Revolution has become the basis of progressive revolutionary traditions. This was demonstrated with extraordinary strength exactly during the days of the Slovak National Uprising and of the May Uprising of the Czech people.

Currently, when our society is resolving such a complicated and exacting task as the transition to the comprehensive intensification of the national economy, the progressive revolutionary traditions of the past are being complemented by new moral and political features; by a conscious attitude to science and technology and to their use in practice; by a high degree of selfdiscipline; by the feeling of high responsibility for an economical use of raw and other materials; by an irreconcilable attitude toward shortcomings and abuse. These new, emerging traditions also have a revolutionary character; they express not only the relationship toward the legacy of the preceding generations of revolutionary fighters, but also the attitude to the current tasks and to the future.

Experience shows that we are still making insufficient use of the possibilities provided by the revolutionary traditions of the past for shaping the people's socialist awareness, and particularly that of our youth. The greatest obstacle in this direction is their underestimation and a formal attitude toward them.

The experience acquired during the Slovak National Uprising provides a most topical lesson for our present fight against political clericalism, to which the ideosubversive centers attribute an extremely important role in their plans aimed at destabilizing the socialist social system. The bourgeois propaganda

likes to disseminate what are literally horrors about the alleged persecution of believers in our country. At the same time it is not at all concerned about the believers--it is concerned about being able to abuse the people's religious sentiments, as in the Polish People's Republic, for destroying the socialist system.

The highest price to be paid for the activity of political clericalism was always paid by the believers. It is perhaps sufficient to remind that the overwhelming majority of victims in the mass graves left on our territory by clericofascism were believers. The typical feature of Slovak fascism was the abuse of the people's religious sentiments; that is also why it has entered history as "clerico-fascism." Its representatives referred to national and religious feelings left and right while at the same time bragging that they would "exterminate to the last root every Bolshevik, even if he is a Slovak." It is due to our people that they did not succeed in this.

"We witness the efforts of foreign clerico-anticommunist centers," Comrade Jozef Lenart stated at the last congress of the Slovak Communist Party (CPSL), "to abuse the believers' religious sentiments for hostile activity against our people, on their social interests, on their patriotic feelings, on their cohesion, and on progressive peace efforts, we will resolutely ward off such old-new subversions, regardless of the form they take."

The historical legacy of our people's national-liberation struggle commits us to consistently consolidate the class approach to events in our present world. This is extremely important in work with our youth, which has not experienced the beastliness of fascism. The legacy's significance is enhanced by the current, unusually exacerbated, international situation."

The legacy of the Slovak National Uprising commits us to constantly consolidate the upbringing of our population in the spirit of creative socialist patriotism and internationalism. This envisages a resolute fight against relapses into nationalist moods, opinions and stances. The history of socialist countries confirms that almost all deviations from Marxist-Leninist ideology, as well as the crises in their internal life, were in some way connected with the revival of nationalist tendencies.

The historical legacy of our people's national-liberation struggle commits us to protect like the apple of our eye, and constantly to consolidate, our friendship and alliance with the first socialist state in the world--the Soviet Union, one of the main pillars of our present life."

The history of the antifascist and national-liberation fight, which set off the most penetrating social, political, economic and cultural transformations in our entire history, this history has a specific and topical significance for every communist, for every citizen. It provides a stimulus for everyone to reflect on things, and it is an impulse for specific acts, for a high activity in fulfilling the current building tasks. The legacy of the glorious days of the Slovak National Uprising inspires and commits us all.

CSO: 2400/343

## NEW DEVELOPMENTS IN L-39 AIRCRAFT MODELS DISCUSSED

Berlin FLIEGER REVUE '84 in German No 5, 1984 pp 146-150

[Article: "The Other Albatrosses"]

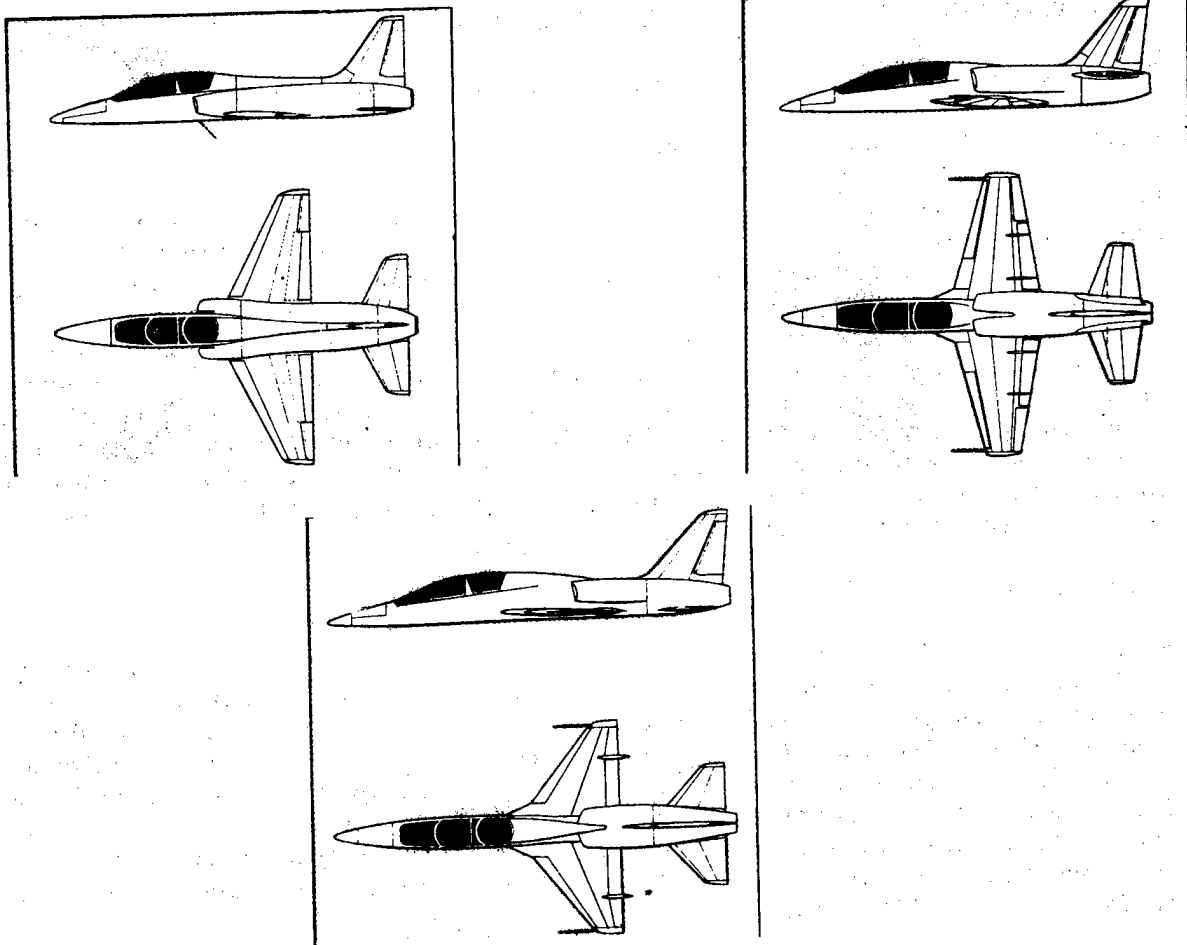
[Text] At last year's Paris Aerosalon the Czechoslovakian foreign trade organization Omnipol once again had offered some versions of the L-39. Thus it was apparent that the aeronautics industry of our neighboring country had succeeded in expanding the already quite broad spectrum of applications of the L-39 beyond its proper task area as a jet trainer. The albatrosses have molted into aircraft for combat use, for photoreconnaissance and for use as light pursuit bombers. Naturally, at the same time this also expands their previous spectrum as trainers. Thus they can be used as trainers for photoreconnaissance and can be used more extensively than hitherto for employment in pursuit bomber exercises, or in other words for training tasks extending beyond those originally assigned to this model.

## Development

As early as 1963 work was begun within the framework of the Council for Mutual Economic Aid on the planning of functions and specifications for a second-generation jet trainer. These plans were based upon experience which had been acquired with the first-generation L-29 Delfin jet trainer developed after 1956. Several hundred aircraft of this robust model are still being flown today in 11 countries. More than 3,500 of them were produced since 1965. It is testimony to the good work of the Czechoslovakian aircraft builders that many of these L-29's have lasted more than twice as long as their projected lifetime.

But the L-29 was a good design not only in terms of its solid construction; it was a good machine generally. But because of the stormy development of combat aircraft engineering in the interim the specifications imposed on a jet trainer were correspondingly enhanced. It was not surprising that Jan Visek, the principal designer in the Aero plant who had been commissioned to develop a second-generation TL trainer, together with production manager Karel Dlouhy and the entire collective of designers, initially considered as their first project variant a further development of the L-29 into a higher-performance and more modern L-129. But since with an improved Delfin it would have been impossible to cover the entire required training complex an additional trainer would have been necessary for advanced training.

This trainer model was once again a part of a second project variant designated TTP which was intended to be a universal trainer. Several designs for the TTP variant were worked up of which three are shown in the drawing below. One of these studies represented a TL trainer designed for speeds up to Mach 1-1.2. In the event of development of an L-129 it was intended to serve in the training complex as an advanced trainer L-39M-1. And so this training complex consisting of two different models and which would have also included simulators and movable control systems was nevertheless allowed to drop in favor of the TTP project variant. And so Jan Vicek and his collective began developing a universal trainer, the L-39.



Three designs for the TTP; in the middle the L-39M-1 study.

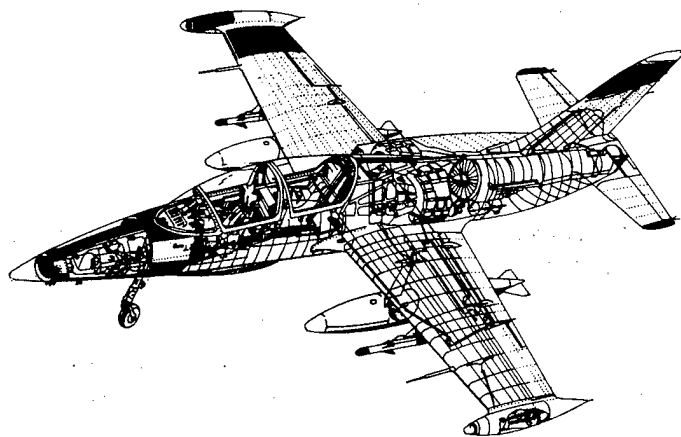
The first model appeared in the year 1964 which was soon followed by other models for various investigations so that by the end of 1965 model No 3 was available on a scale of 1:5. This was used to check out all previous developmental studies because just with these models alone it is possible up to a certain point to establish, mainly in the wind tunnel, whether changes are necessary. With the later prototypes it would have been possible to carry them out only at substantially greater expense. For example, in contrast to

the previous models improvements were carried out in, inter alia, the wings and the air intakes of No 3. At the same time this model served as a basis for a first evaluation on the part of the state control commission.

A full-scale mockup of the forward fuselage was made for configuring the cockpit while checking crew vision conditions and for studying the installation of the numerous pieces of equipment which must be housed in a modern airplane. This was followed by a mockup of the entire airplane which was likewise on a 1:1 scale. Using this in 1967 the state control commission in a second evaluation examined the previous fulfillment of specifications and approved the further development program.

Meanwhile it had been decided that the L-39 should receive the Al-25 power plant which had already proven successful in the Jak-40. For its new area of application it was correspondingly modified in the Motorlet plant in Jinovi. Simultaneously with the development of the L-39 a new catapult seat was designed for this machine, the ground catapult trainer NKTL-29/39 was developed as was the TL-39 flight simulator and the automatic KL-39 control installation which was housed in a "Kleinbus."

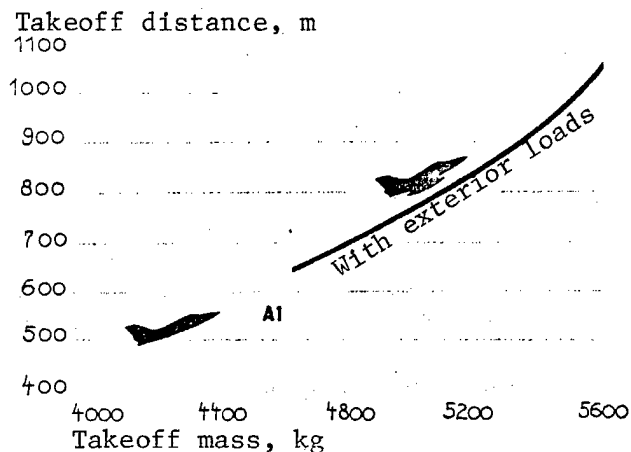
Then in 1968 testing began on the new jet trainer. However, the first prototype L-39X-01 was not flown. But it had never been intended that it should be. It stayed on the ground where it was subjected to extremely severe static load tests and to many different tests of strength. The prototype X-02 was provided for the first L-39 flight. On 4 November 1968 test pilot Rudolf Duchon took off with it on its maiden flight from the Aero Vodochody factory airfield situated north of Prague. Just 1 month later the X-03 began its test program. After several test flights which served to resolve some aerodynamic problems at the air intakes and at the fuselage-wing junctions the X-03 successfully completed an important portion of the L-39 test program: testing the new TL trainer's escape system consisting of the VS-1BRI catapult seat. The first catapulting took place in July 1971. Later the X-03 served as the first ground test model for installation of the L-39ZA guns.



Sectional drawing of the L-39ZA in the R4 armament version (see figure, p 10).

Like the X-01 the X-04 was a "nonflying airplane." It was intended to be used in determining whether the planned lifetime of 3,000 flight hours could actually be survived by the L-39. Between the beginning of 1970 and October 1971 the Czechoslovakian Aeronautical Research Institute VZLU in Vysocany subjected it to continuous material fatigue tests.

Before these tests on 23 September 1969 the X-05, again with Rudolf Duchon piloting, successfully passed its first flight. In the test flights of this model it was essentially improvements in the air intakes which were investigated. But primarily this fifth prototype served after 1 February 1971 for military tests of flight performance and flight characteristics carried out by the Prague-Kbely Research and Testing Center. At this location in the Czechoslovakian Aeronautical Museum in Prague-Kbely, which reopened its doors in the beginning of May after its annual winter break, the L-39X-05 found its current domicile and may be seen there.

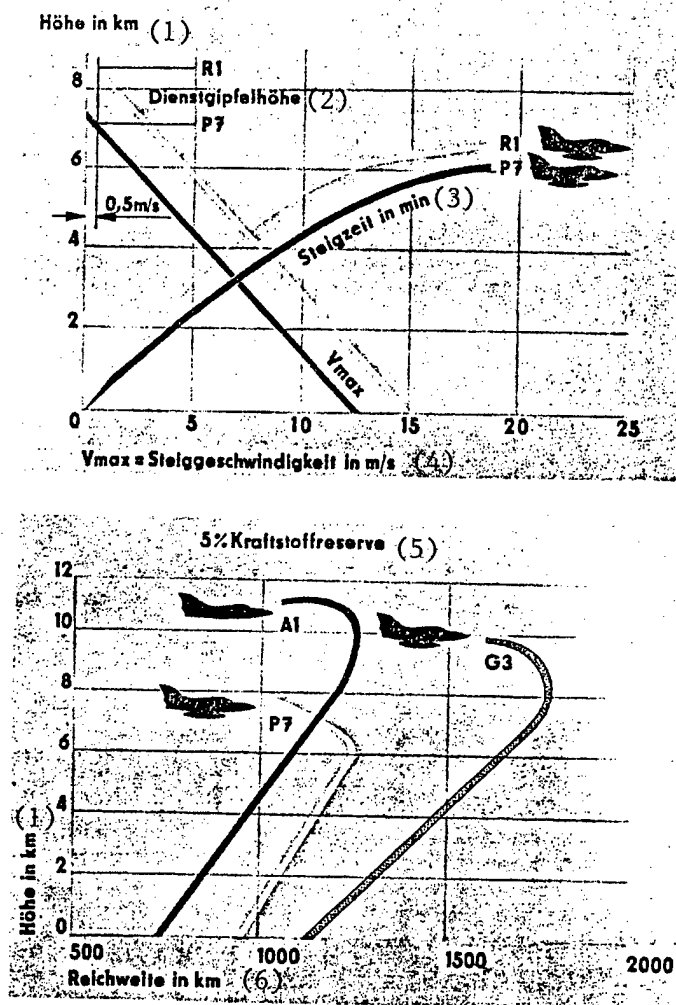


Takeoff runs of the L-39ZA without (for A1, see figure, p 10) and with exterior loads.

In the beginning of 1973 during the testing of the L-39 the improved Al-25TL power plant was used for the first time. It was installed in the X-06 which had already previously as of 28 April 1970 been under flight test with an Al-25W. The test program of the sixth prototype included testing of the KL-39 movable control system as well as firing and bomb-dropping tests with military exterior loads.

Finally, in the seventh prototype the Aero aeronautical engineers had introduced all the changes which the previous test flights had shown to be necessary, including among other changes those at the junctions of wing and fuselage and of the wing with wing-tip tanks, together with modifications of the ailerons, elevator and side rudders. This resulted in an improvement mainly in takeoff and landing characteristics while carrying exterior loads and while using unprepared SLB [expansion unknown]. The X-07 successfully carried out its first flight on 15 December 1970. Beginning in May 1973 the Soviet Air Force as principal client subjected the new jet trainer to extensive testing under the most severe conditions. The test ended with a

recommendation that the L-39 be incorporated into the training units. Mass production of the L-39 could begin.



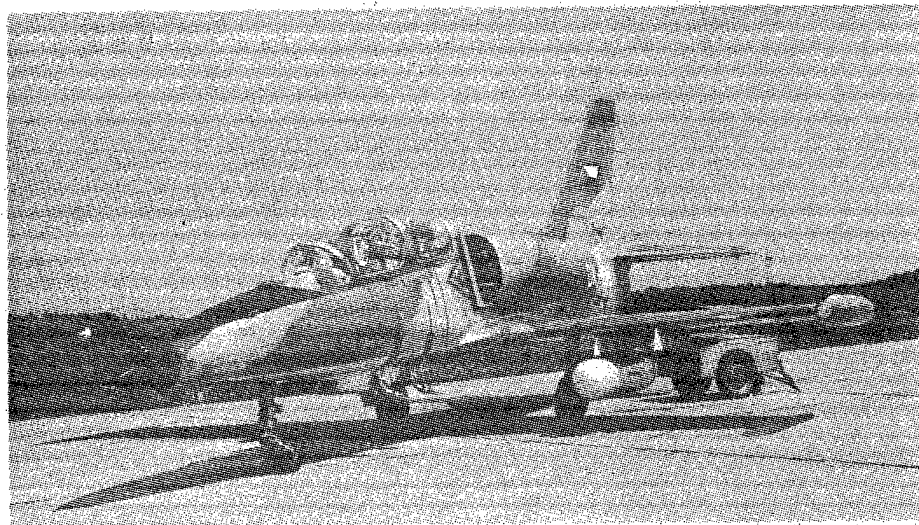
Climbing performances of the L-39ZA armament versions R1 and P7, including also the maximum ranges of the armament versions A1, P7 and G3.

Key: 1. Altitude, km 4.  $V_{max}$  = climbing speed, m/sec  
 2. Service peak altitude 5. 5% fuel reserve  
 3. Climbing time, min 6. Range, km

All later prototypes were test models for the development of the L-39V, Z0, and ZA versions which are described in the following section. Thus the X-08 served as a prototype for the L-39V which was a target-towing variant. The flight testing began at the end of 1972; the military testing started in July of the following year together with testing of the KT-04 towing target.

In the years 1973 to 1976 the X-09, X-10 and X-11 emerged as prototypes for the L-39Z0 with increased carrying capability for military exterior loads and

as prototypes for the ZA pursuit bomber variant. In this way the Czechoslovakian aeronautical engineers succeeded at minimal expense in doubling the exterior loads which the L-39 had formerly been capable of carrying. In place of the two exterior load suspensions under the wing surfaces four were attached. Numerous tests resulted in an arrangement which prevented hot rocket exhaust gases from damaging the airframe and from disturbing the operation of the power plant. The higher stress imposed upon the airframe by the increased exterior load was compensated by strengthening the wings and the undercarriage.



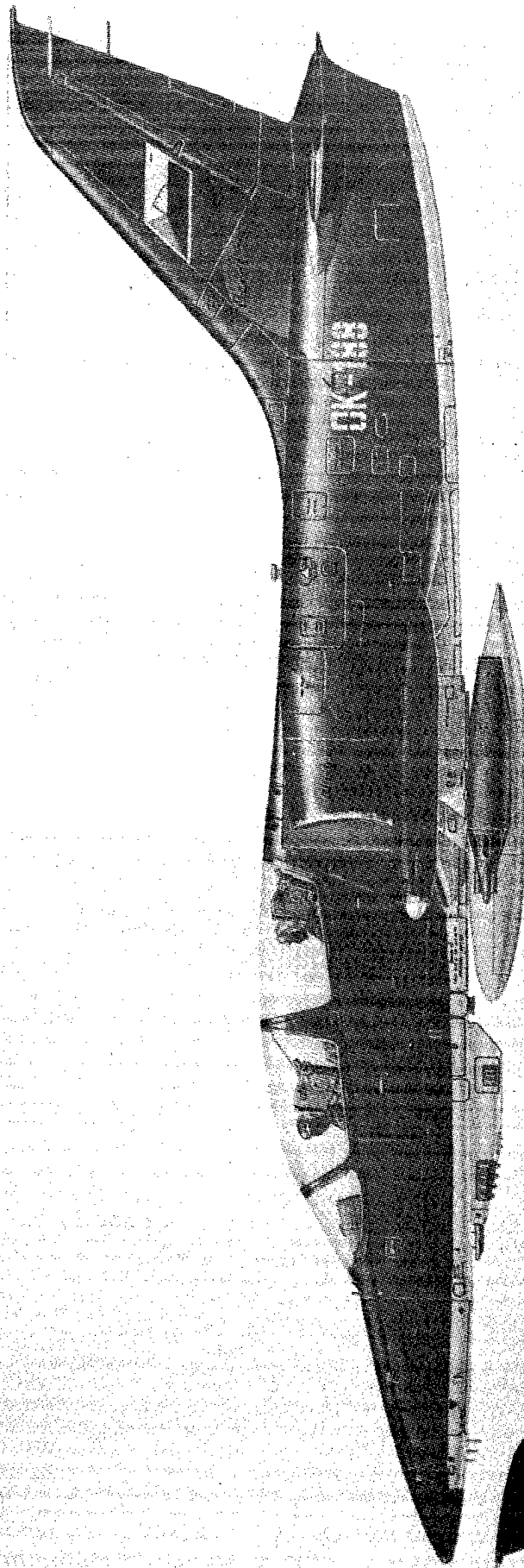
L-39ZA

What the L-39 still lacked to be usable also as a light pursuit bomber was modern artillery. Reasons of standardization were alone sufficient to settle the choice upon the 23-mm GSch-23 twin cannon familiar from more recent MiG-21 versions as well as from the MiG-23. It is relatively light, small in its dimensions and nevertheless has very heavy firepower. The most favorable method of installing the weapons turned out to be installation of the guns in a gondola-shaped bulge under the fuselage, with the ammunition itself, however, being stored within the fuselage. Conclusion of the testing of the X-09 up to the X-11 was reached with the acceptance tests carried out by the Czechoslovakian and Soviet Air Forces in the year 1977.

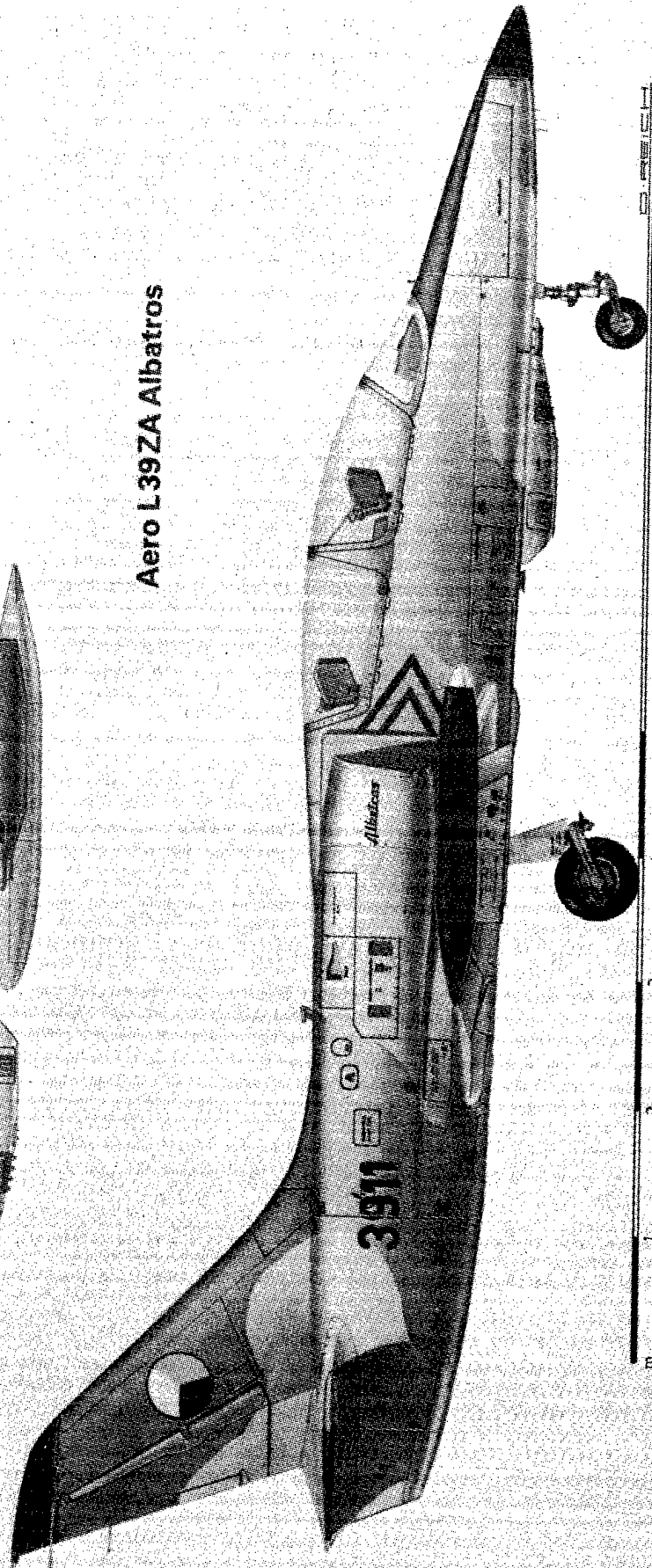
The X-12 prototype which was at the time the last prototype to become known served in the further lengthening of the lifetime and reliability of the L-39. It was used for long-term fatigue tests in order to acquire new knowledge in conjunction with experience obtained from use of the mass-produced machine.

#### Versions and Weaponry

The foreign trade organization of the Czechoslovakian aeronautical industry lists the following possible uses of the L-39:



Aero L39 ZA Albatros



- i. basic training and advanced training of pilots by day and night, also under difficult meteorological conditions;
- ii. training in combat maneuvers;
- iii. attacks upon air targets using guided air-to-air rockets having an infrared target-seeking head;
- iv. training in interception of air targets with the aid of the photomachine gun;
- v. attacks upon air targets (e.g., helicopters) and ground targets with unguided rockets;
- vi. destruction of moving or nonmoving targets on land or on the water using bombs of the most varied type and by means of machine gun artillery;
- vii. reconnaissance flights;
- viii. towing KT-04 air targets which serve for the training of ground units in attacking air targets.

In order to be able to cope with these manifold tasks four versions were made which in their construction differ only nonessentially and in which to enhance use flexibility the weaponry installation is not permanent.

#### L-39C

This first variant represents the basic version primarily produced for training. Since its engineering is widely known it is not necessary to describe it here. It is equipped with a suspension device on each wing for weapons, containers, or auxiliary containers, in each case being capable of carrying a maximum of 500 kg of exterior load.

#### L-39V

This represents a modification of the basic version into a single-seat towing aircraft for air targets. Room for the towing cable drum was created by removing the seat in the rear cabin. In addition the control equipment and also a cable brake are housed in the fuselage. Characteristic for this L-39 design is the small stagnation pressure turbine under the fuselage with the aid of which it is possible to pull in the 1,700-meter-long towing cable for the KT-04 air target when the ground units being trained have terminated their firing on the air target and the latter has been unlatched over the airfield, then to be dropped by parachute.

#### L-39Z0

In this first of the new versions it was possible to double the number of exterior load suspensions. Thus it has two such suspensions per wing, having different load support capabilities. This load amounts to 250 kg at each of

the outer stations and 500 kg at the inner ones. The following exterior loads can be carried by the L-39Z0:

- i. 50-kg, 100-kg, 250-kg and 500-kg bombs. The latter are attached only at the inner stations. Two each of the 50- and 100-kg bombs can be attached at one station;
- ii. UB-16-57 cassettes for 16 unguided S-5 air-to-ground rockets of 57-mm caliber which can be fired pairwise, in sets of four or in salvos;
- iii. auxiliary fuel tanks each for 150 or 350 liters;
- iv. guided air-to-air rockets which are attached at the suspension station by means of special mountings. If after firing the target-seeking heads of these rockets have hit the target a signal sounds in the earphones of the crew;
- v. containers with 7.62- or 12.7-mm caliber machine guns;
- vi. a container with five cameras which is attached at the left inner suspension pylon. During use in photoreconnaissance the L-39 carries a 350-liter fuel tank at the inner right-hand suspension.

#### L-39ZA

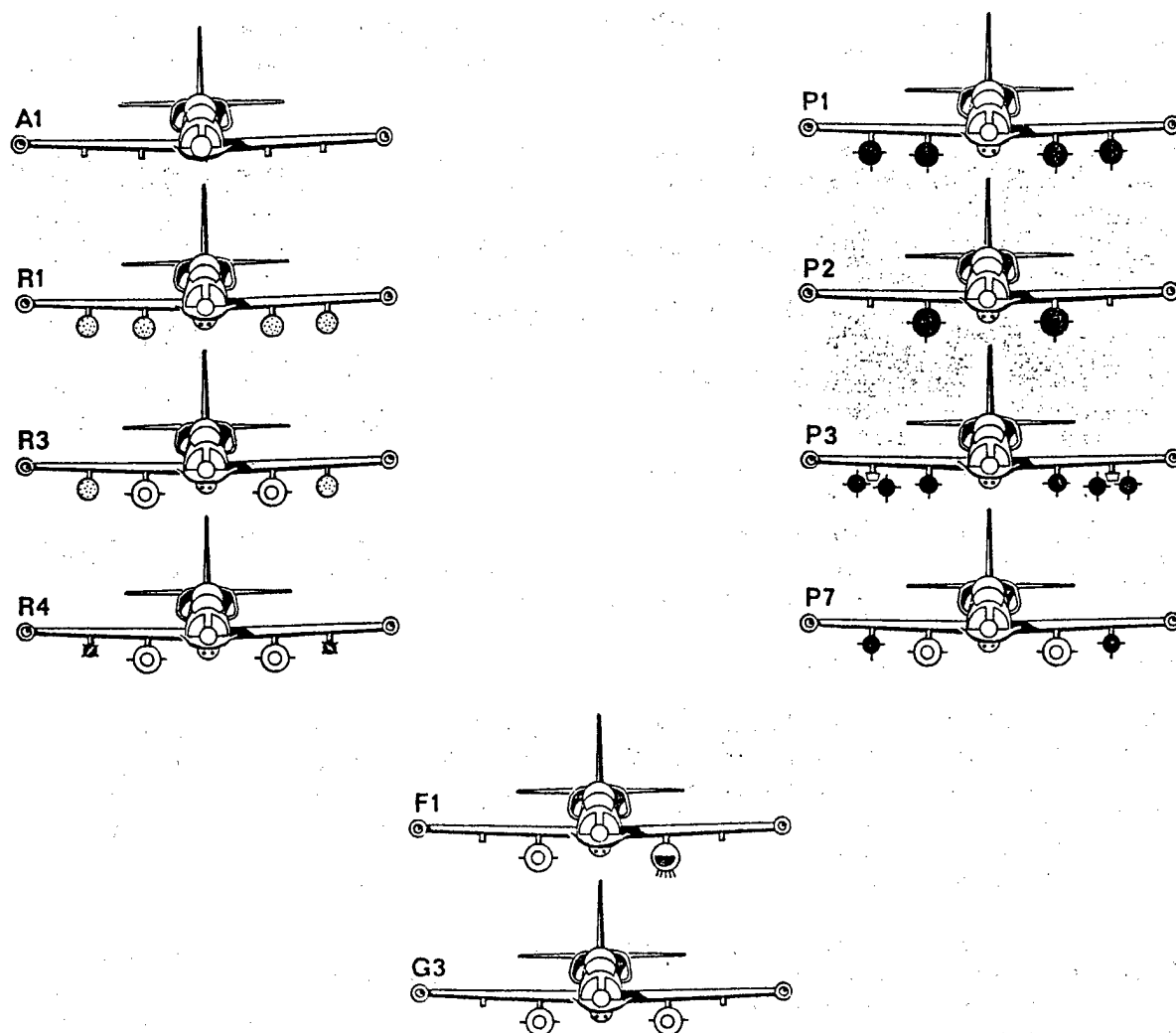
In this second of the new Albatross versions it is possible to mount under its fuselage a gondola carrying the double-barreled Soviet aircraft gun GSch-23. This rapid-firing weapon has a caliber of 23 mm. The ammunition supply of 150 grenades is stored in the fuselage of the L-39ZA under the rear pilot seat. An automatic device blocks the firing mechanism of the gun whenever the angular zone of the nose wheel is entered.

The exterior loads of the L-39ZA correspond to those of the Z0. They can be arbitrarily varied, subject to the maximum load permissible per suspension. Of the 19 different combinations the attached illustration represents the most important of them by means of the example of the gun-equipped L-39ZA. The maximum total exterior load of the L-39ZA amounts to 1,100 kg. Its load factor which ranges from +8 g to -4 g permits all required maneuvers to be executed during combat as a light pursuit bomber or during photoreconnaissance.

All Albatross versions other than the L-39V possess a permanently built-in target camera FKP-2-2 using 35-mm film. By means of this it is possible to check on the fulfillment of combat tasks and to detect any errors so that in future they can be avoided.

In conversations with the Czechoslovakian aeronautical engineers participating in the development and mass production of the Albatrosses their words reflect justified pride in their accomplishments. But they also speak of the fact that everything is attributable to one initiative within the framework of the Council for Mutual Economic Aid and they speak especially of confident

cooperation with the Soviet aeronautical experts which has been characterized by an attitude of mutual aid.



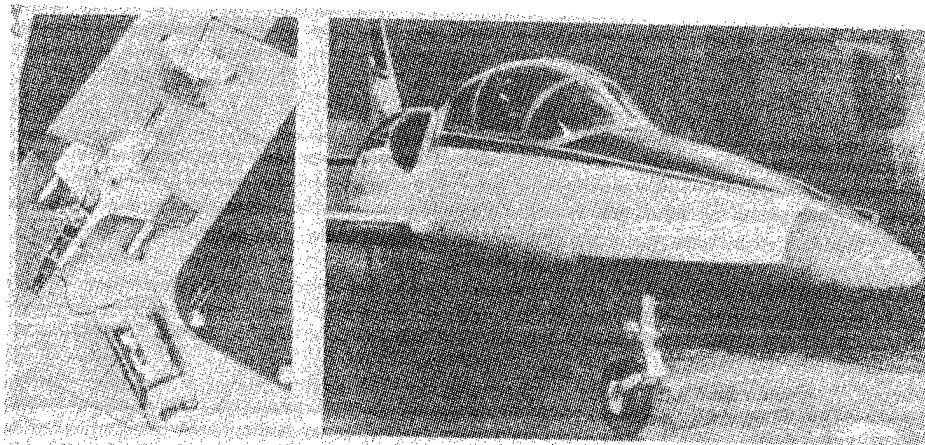
The most important armament versions of the L-39ZA: A1--without armament; R1--one twin cannon, two rocket cassettes; R3--one twin cannon, two rocket cassettes, two 350-liter fuel tanks; R4--one twin cannon, two air-to-air rockets, two 350-liter fuel tanks; P1--one twin cannon, four bombs (250 kg); P2--one twin cannon, two bombs (500 kg); P3--one twin cannon, six bombs (100 kg); F2--one twin cannon, two bombs (100 kg), two 350-liter fuel tanks; F1--one camera container, one 350-liter container; G3--two 350-liter fuel tanks.

#### L-39 Prototypes and Their Identifications

X-02	OK-32, OK-180, 3902	X-06	OK-186, 3906, OK-184
X-03	P-03, OK-23, OK-182, 0503	X-07	3907, OK-184
X-05	OK-25, OK-184, 3905, OK-008	X-08	3908

X-09 3909, OK-186  
X-10 OK-188

X-11 OK-HXA, 3911, OK-190



Left: one of the L-39 models with separated tail section. This design still possessed no rear surface tank. Beside it the 1:1 mockup of the L-39.

The report that through the licensed mass production of the MiG jet pursuit plane series at the beginning of the fifties the Czechoslovakian aeronautical industry received the benefit of Soviet design and production experience for the development and building of modern TL aircraft. They further report that the Soviet Al-25 power plant and a whole series of other power plants contributed to making the L-39 into a high-performance airplane. Likewise they report that whenever problems came up during development of the Albatross whose solutions exceeded the capabilities of the Czechoslovakian aeronautical industry Soviet comrades took over these tasks in their research and development centers--such as, for example, in the ZAGI. This will continue in the future. In the meantime the Czechoslovakian aircraft builders are preparing for mass production of the latest Albatross, the L-39MS, which is equipped with the higher-performance DW-2 power plant. And in the design offices planning studies are in progress for the jet trainer of the next, that is, the third generation which is to bear the designation L-49.

8008  
CSO: 2300/496

SED CC RESOLUTION SETS POLITICAL, MILITARY SCHOOLING GOALS

Background Commentary

Frankfurt/Main FRANKFURTER ALLGEMEINE in German 25 May 84 p 5

[Article by "Ws." datelined Berlin 24 May 84: "GDR Wants to Intensify Ideological Schooling"]

[Text] Teachers and educators in the GDR must act ever more as propagandists of Marxism-Leninism and SED policy. This is provided for in a SED Central Committee Secretariat resolution published in NEUER WEG, the magazine of SED functionaries. This states: "Appreciation for the party's overall policy must be further deepened among all teachers, educators and popular education officials. That is the decisive prerequisite for successful schooling and education." As for politico-ideological work among pedagogues, it is imperative to deepen their love for and loyalty to the GDR, pride in our achievements, in the values of socialism, and strengthen the feelings of friendship toward the Soviet Union. "Education for socialist patriotism must be always and most closely linked with education for proletarian internationalism."

The goal of education in the schools of the GDR is the shaping of "communist personalities." The SED Central Committee Secretariat therefore calls for the entire education and schooling of the young generation "to be directed to the development of communist ideology and morality." Communist schooling must arouse the consciousness of the young with regard to their responsibility in the class conflict of our age and reinforce their political attitude and their readiness to serve.

The party organization requires the school party organization at all times to know "what motivates the teachers." In the closest possible cooperation with the principal and the labor union leadership organization, they should therefore do everything in their power "at all times to maintain the political discussion with every teacher" and endeavor "to strengthen and deepen the class standpoint of the pedagogues." SED kreis leadership organizations and party organizations must devote "greater attention" to the Marxist-Leninist qualifications of educators. Party organizations must concern themselves specially with the teaching of civics. The SED resolution says verbatim: "The exertion of greater influence on the selection and schooling of civics teachers, annual confirmation of teachers, including those who teach in vocational schools, the regular transmission of party information and the

explanation of new resolutions will ensure that civics teachers with increasing efficiency observe their responsibilities as propagandists of Marxism-Leninism and party policy."

The resolution continues by pointing out that party work must always be based on the fact that the success of "communist education" largely depends on the teacher's personality, his ideological and politico-ideological attitude, his specialized and pedagogical schooling and his "cultural standard" as well as his affection for the children. The SED kreis leadership organizations therefore need to devote more attention to the recruitment and selection of class conscious FDJ members for the teaching profession, the schooling of future teachers and educators, in particular during their practical training and their deployment. The greatest regard is due the future civics teachers and friendship pioneer leaders (friendship pioneer leaders are usually full-time and pedagogically trained youth functionaries, assigned by the FDJ youth federation to manage a pioneer friendship group. Boys and girls in the first through seventh grade are organized in the Ernst Thaelmann Pioneer Organization, the united socialist mass organization of children in the GDR. All "pioneers" in a school represent a pioneer friendship.)

The SED Central Committee Secretariat also comments on military education in the schools: Military education as an element of communist schooling must be so organized that the readiness for military service is developed in all students, while the prospect of assuming a military career is developed and strengthened in suitable young people. The accomplishment of this task requires the meticulous observance of the responsibilities of all those involved and "planned political work with students and parents by the close cooperation between the military district command, the schools, parents' associations, the FDJ, the Society for Sport and Technology and the vocational advice center."

The SED Central Committee Secretariat resolution is likely in particular to disappoint the churches in the GDR. The Protestant churches there have been trying for years--so far in vain--to talk to the Ministry for Popular Education in order to precisely define what is to be understood by "communist education" and to make sure that Christian children in the schools and educational facilities of the GDR in fact enjoy the freedom of conscience and religion guaranteed in the constitution. The Catholic bishops in the GDR have repeatedly pointed out the parents' absolute educational rights. The latest expression of this doctrine is to be found in a joint pastoral letter of January 1983: "Parents may not relinquish their primary educational right, and nobody may deprive them of it. The state also must consider the parents' wishes when setting its educational targets."

#### Central Committee Resolution

East Berlin NEUER WEG in German Vol 39 No 10 May 84 (signed to press 10 May 84) pp 383386

[Resolution of the SED Central Committee dated 25 Apr 84: "Statement of

the Secretariat of the SED Central Committee on the Report of the SED Leadership for the Berlin-Koepenick Kreis About Experiences and Results of Political-Ideological Work in Carrying Out the School Policy of the SED's 10th Party Congress"]

[Text] The efforts of the working people and the diligent and creative work of pedagogues and popular education functionaries, led by the kreis party organization, recorded excellent results in the implementation of the Tenth SED Congress educational policy in the Berlin-Koepenick city district. It is impressively evident that our socialist system of popular education (guaranteeing the right to excellent education for all children of the people) counts among the outstanding achievements of the GDR's 35 years of evolution. Drawing on the Seventh Central Committee Plenum, the pedagogues are professing their limitless confidence in the SED Central Committee and its general secretary, Comrade Erich Honecker. Precisely in the exacerbated international situation of the present they are expressing their agreement with the peace policy conducted by the Soviet Union and the other socialist countries, and their appreciation of the measures adopted by the GDR's National Defense Council. They are demonstrating this by sound and inventive efforts in the GDR's anniversary year, especially in preparation of the local elections and the National Youth Festival.

Consonant with the orientation given by the Tenth SED Congress, the Seventh GDR Pedagogical Congress and the Central Principals' Conference of the Ministry for Popular Education, the leadership actions of the Berlin-Koepenick SED kreis leadership are directed to the further expansion of the educational potential and its increasing utilization for scientific-technological advances, the greatest possible growth of economic performance, effective politico-ideological work and a culture filled life for our citizens. The potentials of the popular education system are made increasingly effective so as to closely link the schooling of our young with practical pursuits and develop their class-like and creative thinking and actions.

The experiences of the Berlin-Koepenick kreis leadership demonstrate compellingly that successes in the education of your youth in the spirit of communist ideals and their preparation for life and work in socialism are achieved mainly when leadership activity concentrates on realizing school political tasks always as an element of the party's general policy, regularly comments on the status of development in all sectors of popular education and improves the fighting strength of the party organizations in the general educational polytechnical secondary schools, kindergardens, extra-curricular facilities, teacher training institutions and the facilities of youth aid. The focus here is politico-ideological work with the teachers.

The Central Committee Secretariat recommends the Berlin-Koepenick kreis leadership to continue to devote its attention to the following tasks:

1. Appreciation of the party's general policy must be further deepened among all teachers, educators and popular education functionaries. That is the crucial prerequisite for successful educational and schooling work.

Politico-ideological work among pedagogues must be directed to providing answers to the questions by concerned teachers, parents and students. It is imperative to deepen understanding of domestic and foreign affairs and our economic strategy and to further intensify the historic optimism arising from the law of the social development of our age. Attention must focus on the struggle for peace and socialism the development of the readiness to strengthen socialism by disciplined study and work and actively defend it against all imperialist attacks.

On the basis of the "appeal to the 35th anniversary of the German Democratic Republic," the establishment, evolution and growth of the GDR, the fundamental changes since the workers and farmers power was set up on German soil with the leadership of the party of the working class, are to be persuasively presented. It is imperative to deepen the love for and loyalty to the GDR, pride in our achievements, in the values of socialism, and further to strengthen the feelings of friendship for the Soviet Union.

From this aspect, the ideological work of the school party organization must effectively help the pedagogues to orient the entire schooling and education of the young generation to develop a communist ideology and morality. Communist education must make the young aware of their responsibilities in the class conflict and reinforce their political attitude and readiness to serve. The Ninth Meeting of the FDJ Central Council provides important incentives for the accomplishment of this educational assignment. It represents the common conception of the socialist youth federation and the Ministry for Popular Education for the communist education of our youth.

When explaining party policy and the development proceeding in the region with regard to the realization of the Tenth SED Congress resolutions, it has been found useful for functionaries from the party, the state, the labor union and enterprises to appear before the pedagogues, and for educator collectives to visit enterprises, scientific and other facilities. This helps the pedagogues to appreciate their own work as a contribution to the realization of the party's social strategy and enables them to school and educate the young with relevance to daily life and respond more concretely to the questions and experiences of their students.

School party organizations must at all time be familiar with the teachers' concerns. In close cooperation with the principal and the labor union leadership organization they must do everything in their power to constantly maintain the political dialogue with every teacher, quickly and independently respond to topical questions, seek the clash of opinions, argue offensively and on a Marxist-Leninist basis and thereby constantly endeavor to consolidate and deepen the class standpoint of the pedagogues.

The kreis leadership and party organizations must devote greater attention to sharpening the Marxist-Leninist skills of the pedagogues. They should ensure that the party school year is even better used for the absorption of relevant Marxist-Leninist doctrine, the politics and history of our party. Most important in this context are the conscientious selection and guidance of propagandists and special exchanges of experience with propagandists from the basic organizations of popular education. Home study is to be assigned

greater importance. The kreis leadership secretariat should consistently pursue its work with the civics teachers. Greater influence on the selection and schooling of civics teachers, their annual confirmation (inclusive of the instructors teaching in vocational schools), the regular transmission of party informations and the explanation of new resolutions will ensure that civics teacher will with increasing efficacy observe their responsibilities as propagandists of Marxism-Leninism and party policy.

2. The management operations of the kreis leadership and party organizations must be directed even more emphatically to the encouragement of the responsible work of educator collectives with regard to the realization of the Tenth SED Congress school policy, the orientations of the Eighth Pedagogical Congress and the Central Principals' Conference.

To be reinforced is the atmosphere of creative work, the critical evaluation of achievements and the dispute with inadequacies. The personal example of communists in political and pedagogical activism is of vital importance and represents one of the fundamental prerequisites for the greatest possible power of persuasion and attraction of the party organizations for the educator collective, the labor union organization, the FDJ and the Ernst Thaelmann Pioneer Organization.

It is a profoundly political task for every educator collective to guide all children to successful graduation from the school and give them a good headstart for their future lives. This calls primarily for the best possible quality of instruction and makes extraordinary demands on the teacher's preparation for each lesson. The full appreciation of this fact is of particular importance now, because new curricula are being introduced. The kreis leadership and school party organizations ought to carry out stringent checks to ensure that all conditions are met for smooth and skilled instruction.

All party work must be based on the consideration that the success of communist education largely depends on the teacher's personality, his ideological and politico-ideological attitude, his technical and pedagogical training, his cultural standard and his affection for the children. Kreis leaderships should devote more attention to the issue of the recruitment and selection of class-conscious FDJ members for teacher training, the schooling of the future teachers and educators, especially within the framework of their practical training at the schools, and their deployment. Particular consideration is due future civics teachers and friendship pioneer leaders. The Clara Zetkin Institute for Teacher Training has general responsibility for the training of junior grade teachers, friendship pioneer leaders and residential home educators for the capital as a whole. This assigns a major responsibility to the kreis leadership and the comrades at the Institute.

The accomplishment of school policy tasks challenges the fighting strength of each party organization and calls for trustful relations with all teachers, educators and school employees. The crucial prerequisites are a full internal party life, especially relevant and combative membership meetings as well as the firm organization of party life. This also includes the work with concrete and accountable party assignments and the organization of regular personal talks. The management style of the party organizations should

be more emphatically directed to the initiative and constructive involvement of all pedagogues, consideration for their proposals and suggestions, close cooperation with the state leadership, the labor union leadership, the FDJ and Pioneer leadership organizations as well as the party group of the parents' associations.

Greater attention needs to be devoted to the differentiated kreis leadership guidance of party organizations in the institutions of popular education, help on the spot and regular exchanges of experiences to improve their fighting strength. The proper proportion of party members must be safeguarded in all collectives of popular education, especially among civics instructors, friendship pioneer leaders and the principals of kindergardens.

3. The kreis leadership secretariat should be guided by the fact that close links between school and life and the young people's own active involvement in social development are indispensable conditions of a communist education.

The importance of polytechnical education and schooling for the preparation of the young for life, work and profession has caused the kreis leadership secretariat to carry on their work accompanied by many initiatives for deepening the ideological understanding for these considerations. It would be well for the secretariat's tested experiences with supervisory discussions in the enterprises to be utilized to an even greater extent.

The experiences of Koepenick Cable Works teach us that it is imperative for the best possible quality of polytechnical instruction in the conditions of scientific-technological progress fully to include student production in the enterprise plan, make available student jobs in production on the basis of exact job analyses, acquaint the students with modern equipment, chose suitable tutors and encourage the students' labor competition. Comrades at the schools, in enterprises, state and labor union leadership organizations must see to it that unwarranted differences in standards are leveled and polytechnical instruction secured as per the new curricula in the subjects "introduction to socialist production" and "productive labor."

It must be a basic concern of party work in popular educational institutions to have confidence in the young and assign them responsibilities. The party must be particularly attentive to the work of the FDJ and its Ernst Thaelmann Pioneer organization. The experiences gained by FDJ and Pioneer groups in the course of preparing for the National Youth Festival and in the development of a varied and interesting life must be thoroughly utilized by the school party organizations. These latter should concentrate in particular on the political schooling of friendship pioneer leaders, FDJ leadership organizations and Pioneer councils. The focus should be the "FDJ peace appeal" and the "Pioneer expedition--My Homeland, the GDR." The utmost attention is due the membership meetings and FDJ school year, the Pioneer circles and the youth hours in preparation of the youth consecration. Teachers' FDJ groups must be more effectively involved in the FDJ's politico-ideological work.

By virtue of its many factories and cultural facilities, the Pioneer Palace and the Ernst Thaelmann Pioneer Park, the Berlin-Koepenick district has

grand opportunities for varied extra-curricular activities responding to social needs and the individual interests of students. The kreis leadership should ensure that these opportunities for the operation of work and interest groups, circles, courses and clubs are even more extensively utilized, expanded and made more effective education-wise in the schools, enterprise, state and social facilities, residential districts and mass organizations. Greater importance needs to be assigned natural science and technical activities and work in the field of the social sciences. The experiences of the Pioneer Palace and the Pioneer Park must be made increasingly available and perfected for the extra-curricular activities of students of all ages.

4. The kreis leadership secretariat should further perfect the tried and tested custom of regularly meeting with party secretaries and management cadres of enterprises, cultural facilities, scientific institutions, representatives of the armed organs and managements of social organizations, to discuss their contribution to communist education and the development of the system of popular education.

The kreis leadership should discuss with the comrades of the enterprise party organizations how even more intensively to exploit the various opportunities for cooperation with the schools. We here base ourselves on the Tenth SED Congress statement that nothing can be closer to the heart of a communist than to inspire the enthusiasm of young people for our noble aims. The party expects every comrade to pass on his life experiences to the young and to contribute to the consolidation of the revolutionary unity of the generations.

Enterprise party organizations are also responsible for the improvement of the quality of polytechnical instruction, for backing up political work among pedagogues and students, for familiarizing them with the economic achievements of the working people, for various assistance with extracurricular activities and for leading students to scientific-technological pursuits, involving them in the Fair of the Masters of Tomorrow and giving them orientations for their future professions. An important condition for all this is the recruitment of suitable cadres for the work with students and to give greater emphasis to their social recognition.

In future stable and educationally effective godparent relations must also be greatly stressed. To be generalized are the most progressive experiences of labor union executive boards and leadership organizations with regard to the influence of the working class on the class-like education of school students.

The elections to the parents' associations clearly demonstrated that the successful development of every child, reciprocal respect and trust increasingly determine the substance and style of the joint efforts of pedagogues and parents. Comrade parents should give an example for cooperation the school, most of all with a view to the education of their own children. Enterprise party organizations must assist the elected parent association representatives in their responsible activities. The work collectives are expected to help the working people in the education of their children.

The kreis leadership makes sure that parents' proposals and suggestions are carefully considered and used.

Military schooling as an element of communist education must be so organized that defense readiness is developed among all students, while military career choices are encouraged and strengthened among suitable youths. The accomplishment of these tasks requires the total observance of the responsibility of all those involved and planned political work with students and parents by close cooperation among the military district command, the schools, parent associations, the FDJ, the GST [Society for Sport and Technology] and the vocational counseling center.

To provide the necessary material and personal prerequisites for the smooth flowing evolution of the popular education system in Berlin-Koepenick district, the comrades of the local people's representation and their organs are required even more completely to discharge their responsibilities. Proper building maintenance and the preservation of good working and living conditions for pedagogues, students and technical staffs must receive constant attention. Special interest is due the organization of day-care, vacations and leisure, because these directly affect the lives of the children and their parents. In this meaning greater attention is also still needed for the quality of school meals, milk supplies and other material issues.

In the preschool sector, all children whose parents so wish should be guaranteed a kindergarden place upon completion of their third year, and all prerequisites required for the best possible quality of education and schooling must be guaranteed. The kreis leadership is duty bound to check compliance.

The knowledge and experiences gained in the work of the Berlin-Koepenick kreis leadership are evidence that school political tasks are accomplished effectively the better the politico-ideological work of the party succeeds in utilizing all the benefits of the socialist society.

11698

CSO: 2300/525

MAY 1984 EINHEIT: SCIENCE, TECHNOLOGY, PRODUCTION

Progress, Risks Discussed

East Berlin EINHEIT in German Vol 39 No 5, May 84 (signed to press 10 Apr 84)  
pp 410-415

[Article by Claudia Grafe, Dieter Liebing, and Heinz Willems, all graduate assistants at the Institute for the Political Economy of Socialism in the SED Central Committee's Academy for Social Sciences, and by Prof Dr Harry Nick, research section head at the same institute: "On Guiding Scientific-Technical Progress in the Combines"]

[Text] The significant advances made, above all in recent years, in resolutely intensifying the social reproduction process and the economic experience "that it is possible for us over the long run to increase our output and national income while cutting back energy, raw material and semifabricate consumption in absolute figures"\* greatly depend on a mighty speed-up in scientific-technical progress and its greater economic and social efficiency. They impressively attest to the capability of the socialist planned economy also to cope most efficiently with pervasive structural changes within a fairly brief period and combine high-grade managerial processes with the working people's creative activity.

Based on what has been achieved, it becomes possible, in conformity with the still higher requirements placed on our economic efficiency growth in the future, to tackle a new stage in implementing our economic strategy, which Comrade Erich Honecker has defined as follows: "Higher efficiency from new technologies and new products."\*\*

That connects with high expectations placed on the management of scientific-technical progress. And so it is all the more important thoroughly to analyze the already available experiences and results the combines and enterprises have had with their consistent economic and social orientation in scientific-technical progress. It becomes apparent here that the advances made are greatly due to a

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\*Erich Honecker, "In kampfereueller Zeit setzen wir den bewaehrten Kurs des X. Parteitages fuer Frieden und Sozialismus erfolgreich fort, 7. Tagung des ZK der SED" [In These Times of Struggle We Press Ahead Along the Road to Peace and Socialism Charted by the 10th Party Congress--7th Session of the SED Central Committee], Dietz publishing house, Berlin, 1983, pp 24-25.

\*\*Ibid., p 30.

higher grade of long-term conceptual work and to better work done with the tasking workbooks. In the tasking workbooks was found that instrument for concrete scientific-technical management that embraces the economic results to be achieved as well as the entire process of preparing scientific-technical achievements all the way to their being transferred to production. They turn out to be all the more effective, the more solid the economic targets are, the more the concrete tasks in scientific-technical work conform to those targets--the more the tasking workbooks are used by the managers, especially the general directors, as real working and management tools, not only for lead assignments and later accounting for results, but for the entire process of R&D, design and transfer.

In the new implementation phase of our party's economic strategy the following trends in further improving the management of scientific-technical progress are going to gain in importance:

First, in the long-term conceptual work the potentials of scientific-technical progress will have to be combined more effectively still with market requirements and resource availabilities. That requirement is best met by our concepts of refining.

Second, there must be a better linkage between long-term conceptual work and the planning and the management activity. In practical management activity, strategic aspects--pursuing specific market strategies together with corresponding scientific-technical strategies--are becoming more important, so that in the management activity directly prognostic and operational work merge more with each other.

Third, a more intensive interaction goes into effect between improving management and planning and the spread of the working people's initiative, especially their scientific-technical creativeness.

#### Major Factors in Long-Term Conceptual Work

The characteristic of long-term conceptual work mainly lies in taking care of the dialectical effect of three groups of factors: (1) Changing the needs and terms of the users, (2) the projected scientific-technical developments in any given field, and (3) the quiddity and changes of one's own resources, that is to say, the knowledge and experience of the workers, engineers and scientists, of the energy sources and raw materials, of the available material-technical potential and of the investment possibilities, of the research potential and the possibilities for cooperation.

Essential is that in the course of the innovator processes all three elements affect each other actively. Under changing conditions the impulse or motivation for some innovation can come from either of the three elements. Sure enough, the needs of users and their changes often are crucial in determining R&D tasks. It may also happen, however, that new solutions that first show up in science lead to new results and needs for which a pertinent demand then first has to be created. In general, the stronger impulses for scientific-technical innovations go from users to end producers to ancillary producers. Yet international experiences are telling us that more and more such impulses also emanate from ancillary suppliers and in certain cases even lead to novel end

products. The resource situation and its changes likewise is a starting point for determining the scientific-technical strategy of increasing importance.

Precisely the combining of these three components is what explains the needed criteria and their realization potential. A one-sided orientation to market analysis--i.e. neglecting information inherent in science--can bring about a low demand level because market information is, in principle, information about previous processes. Yet a one-sided orientation to solutions that can be scientifically projected can have the same result, strange as it seems: If there is no pressure from determining future production requirements and conditions, from the users, risky developments might not even be undertaken, and one merely does what is right at hand.

The maximum efficiency of the whole reproduction process calls for pursuing a large number of market strategies simultaneously. And what has the greatest importance here is the proper correlation of strategically significant commodity lines. The starting point in such cases must be creating the guarantees, through the proper use of manpower and means, for top achievements at world standards, for being first in offering new solutions and--through efforts that are by no means less--for permanently ensuring top positions. First that calls for fairly high expenditures, but the premium it promises is commensurate. Practice has shown that much can be gained on the world market even by being slightly ahead, yet when one is slightly behind, poorer results may be out of proportion.

Top achievements at world standards presuppose organizing capacities according to plan, and that concerns all phases and elements of the reproduction process: preparing the market, targeted research, speedy production and a fast output at needed volumes. Holding peak positions once achieved mainly calls for product maintenance, market solicitation, technical services and a responsiveness to special customer requests. That to take care of such customer requests capacities must be available, mainly for design but partly also for R&D and constructing means of rationalization, is an essential prerequisite for a combine's high reaction capability, for which, after all, highly flexible forms of labor organization and production are imperative altogether.

For certain commodity groups it may sometimes also be beneficial to take over rapidly scientific-technical achievements of other countries so as to get as high a market share as possible on expanding markets. Finally, by way of smart market efforts it is perfectly possible to exploit effectively and fast any gaps that may open up in satisfying the demands for conventional products. All such strategies are justified. Their economic effects are all the greater, the more deliberately they are being pursued.

The users' needs are the most important element in determining the scientific-technical strategy. From them often evolve crucial impulses for scientific-technical development and for structuring the combines' scientific-technical potential. Basic innovations clearly ascertainable in basic research must systematically and as fast as possible be turned into commodities meeting the users' needs that either are already extant or have to be created.

In the past our combines have gained much experience in working out the basic lines in commodity development by means of long and medium-range concepts and thereby integrate more long-range innovator processes with the combines' reproduction process. At the same time it now becomes ever more apparent that one must not proceed from a single product but from complex solutions for the users' benefits and the pertinent technical services. This also provides much greater opportunities to combine commodity export with the export of nonmaterial services such as licenses, which can be most profitable.

The main thing is to determine, while proceeding from the main lines in technical and technological development, at what deadline which major parameters must be achieved for major products and technological procedures, and which market strategy must be pursued in that connection. That implies such important questions as: What is the required interval for changing product generations in major commodities? Which economic criteria must be combined with every change in generations? What effect must the new generation of commodities have on boosting the labor productivity for the users as well as their manufacture? How must the input-output ratio or the foreign exchange advantage change? How can one combine generation substitution with ongoing technical improvements? Which demands must be made, in the interest of efficiently reproducing the products, particularly the machines, regarding the standardization and type specifications for components and parts?

This also reveals that the most important connection, in setting as well as implementing a scientific-technical strategy, is that between sales and research. A scientific-technical labor organization which above all originates in R&D and the results of which, if successful, are then offered on the market, is no longer up to date in vast sectors of the economy. For all intents and purposes, it must be approached the other way around: Based on careful market research exploring the users' future needs, one has to make decisions about which markets were envisaged, when products are supposed to reach the market, and how market positions can be conquered or consolidated. From that alone one can then derive the R&D requirements in topics and schedules and, above all, in economics. The meanwhile customary term of the science-technology-production cycle will truly mean what it is called and actually constitute a cycle between science and production when the repercussion production has on research is included in it; but that repercussion comes through sales. Only in this cycle it becomes evident that sales are the final stop as well as the starting point of the reproduction process.

#### About the Risk

That of course raises the question what role risk plays here, and how one can take cognizance of the relative indeterminacy of the results in scientific-technical work. One thing is sure: Attempts at avoiding risks by possibly including only such research tasks in the plan that can be completed with absolute certainty by their deadlines offer merely one "assurance": The economic efficacy of the scientific-technical work will be completely inadequate. One might bring out a fairly large number of smaller research results, but the more important research results categorically needed for ensuring our world market positions are not likely to be among them.

Now then, does assuming more risky research tasks mean--as is sometimes assumed--that it is bound to increase in the same measure the uncertainty in economic development? The opposite of it must be achieved: a greater assurance in accomplishing specific economic effects. Higher economic effects, however, can be attained only if the novelty and originality of scientific-technical results are more consistently heightened even if the risk of research activity admittedly increases thereby. This contradiction must and can be coped with when we become more able to deal with risk. What this involves is twofold: On the one side, we must undertake more tasks that carry risks with them and, on the other, in the course of their implementation the risk must be reduced systematically and according to plan. In general, after all, it is by no means the case that a task all of a sudden turns out not to be feasible so that it has to be broken off unexpectedly. Most of the time, mind you, the risk factors--among which the economic ones are the heaviest--become apparent in the labor process, and chances also arise for coping with them.

Especially in tasks full of risks we must therefore most carefully determine the possible effects from the outset and in the research process itself carefully consider how the economic and technically conditioned risk factors can be reduced. Sufficient R&D concentration on risky tasks and well considered personnel assignments are among the prerequisites for improving the chances of success. In tasks which combine must absolutely take care of it simply becomes a matter of approaching them from different sides so that those necessary scientific-technical solutions also are completed according to schedule. At the same time, this requires assessing at regular intervals the assurance for solutions of specific variants to be able to reduce their number in good time and speed up the most propitious work.

### Stability through Flexibility

Among the most complicated problems in preparing and implementing scientific-technical strategies is the link between flexibility and stability in the process of scientific-technical progress. Generally it may be said that the elements of stability are gaining in importance for a flexible market strategy; in turn, adequate flexibility is imperative for stable scientific-technical and economic development because only adaptable systems can truly be stable.

A high reaction capability and adaptability in R&D can be ensured as a priority only if significant foreign market changes are early spotted in their essentials, the expertise of one's own research and development personnel is ensured, application-oriented developments of one's own are introduced at the proper time, and a high flexibility is guaranteed in structuring the research and production potential. Management activity derives from that the following tasks:

--Highly important is foreseeing qualitative turning points in product and methods development. That way alone can the preconditions be created for coping with such qualitative changes according to plan, in good time, and at the necessary range. Here especially one must pay great attention to economic preconditions and effects and the economic criteria, to which new generations of products and methods must respond. It is important to analyze especially

those economic effects that signify new scientific-technical developments. One must also ascertain the diverse economic effects of different technical-technological variants and assess the risks inherent in them all.

This means that a well functioning system for early spotting qualitative changes in technology and in users' needs is an extremely important element of active technical and market strategy, which must crystallize in concrete inferences drawn for one's own operations.

--Scientific-technical solutions are becoming increasingly complex in character. Machine building, e.g., produces many complete flexible aggregates. Thus the scientific-technical strategy should also set down the sequence in conceiving auspicious technical solutions, in production as well as operations. That partial systems have developmental potentials and are compatible is an absolute precondition for it.

--The speedy scientific-technical progress and the faster product generation replacement demand that the extant technical systems can be modernized so that one can draw the latest results of scientific-technical progress into the renovation of the material-technical base without having to take out and replace those installations in toto. Efficiently coping with the dialectic between stability and flexibility in technical solutions definitely asks for more elasticity in technology itself.

The reconstruction of technical systems--so that they contain the technical-economic parameters for newly produced installations--is a most auspicious developmental trend in scientific-technical progress. The producers of this technology above all derive far-reaching tasks from it. The web of their technical services certainly must include such reconstruction and the appropriate instructions for the users. Especially also in this respect, the increasing importance of constructing one's own means of rationalization will become clear.

--The dialectic between stability and elasticity in scientific-technical developments requires carefully thinking about possibly raising the proportion of standard and model parts and components. The better we can produce novel, economically superior technical systems with a high proportion of repeating elements, in terms of the parameters of the whole installation, the less will the design, start-up operations and ongoing production cost, and the faster can one then react to changes in users' needs.

That such an assembly line system becomes more important, precisely under the aspect of a greater modernization capability of technical installations, goes without saying. Lots of components and assembly is most important for greater technological elasticity. The greater the speed of technical progress and the greater the variety of complete aggregates, the more attention must also be paid to stability and continuity.

All these tasks of more purposive management in scientific-technical progress also point to the special opportunities and advantages of the socialist planned economy in which, within the scope of central management and planning, the combines assume the full responsibility for engaging in their reproduction process and all working people's creative capacities have an ever better chance to spread.

### Procedural, Technical Factors Sketched

East Berlin EINHEIT in German Vol 39 No 5, May 84 (signed to press 10 Apr 84)  
pp 416-419

[Article by Klaus Seydewitz, general director of the VEB Chemical Fiber Combine "Wilhelm Pieck" in Schwarza: "Introduction of a Top Technology--Demonstrated by a Model"]

[Text] The essential contribution by the combines to the continued successful implementation of the main task policy lies in using all the factors of intensively expanded reproduction and, above all, in still more effectively tapping scientific-technical progress as the chief reserve in performance growth, to achieve a maximum production growth while greatly improving the cost/benefit ratio. The needed objective and subjective prerequisites for it--ranging from the material-technical base to the working people's qualification structure--have also consistently been created in the VEB Chemical Fiber Combine "Wilhelm Pieck" in Schwarza, and they are being developed further. The proportion of college and technical school cadre has almost doubled in our parent plant within the last 10 years and comes to 20 percent at this time. These are favorable conditions for quickly and effectively converting new science and technology data into new products, technologies and methods. The reconstruction of our polyamid silk production to introduce high-speed spinning techniques in our parent plant--an essential segment of our central youth project--attests to that.

By introducing the high-speed spinning method our labor productivity and our output will grow significantly once the potentials of this top technology are made effective through steady, smooth and careful labor and the full use of daily working hours. Results are impressive: By using microelectronics and robot technology purposefully, e.g., from taking in the caprolactam down to the completed polyamid silk spools, labor can be released for the more efficient and ambitious activities. The robot technology employed relieves the monotony and improves the working conditions and gives us end products at an unvariably high quality. So the processing of the product is facilitated, and the labor productivity can in the further process be doubled or even tripled. Besides, products made of fast spun silk are highly uniform and show improved intrinsic properties.

An important decision, in order to make full use of the efficiency potential of this new technology in the combine, was to facilitate high-speed spinning through the modernization and reconstruction of available plants and ensure that its introduction would not interrupt our production in its daily struggle for plan fulfilment. That of course causes problems not only for management because its circumspection and organizational capability are now much more challenged for ensuring an effective production process while all the construction and conversion is going on. It demands much compliance from all working people in these sectors in coming up with fine achievements under temporarily complicated working conditions. Such a situation demonstrates in particular that such test situations can be coped with, once a permanent confident cooperation was established in the collectives through steady political-ideological work and giving timely information to the working people and involving them in airing and deciding plant

problems, throughout the normal working day, that is. An understanding of the social interconnections and the assurance that scientific-technical progress in our country does not come at the expense of the working people in our combine also turned out to supply significant motivation for our project to trigger an energetic and initiative-rich participation by the collectives. A strong moral impulse for our whole combine was also, in particular, the knowledge that through coping with the new technology and the potential available an economic task could be fulfilled which otherwise would have required a new enterprise with 2,000 workers.

For management activity that means in particular observing all aspects of the time economy law. We do our best in putting into operation as early as we can the production capacities created at lowest possible expenditures or modernized, so that the commodities produced by the new technology get onto the market fast. The time gained benefits us in further increasing our contribution to the domestic and foreign markets. Our goal is

- to meet the needs of our country's textile industry for chemical fiber fully out of domestic production and ensure higher exports,
- to engage in enhanced refining of the available raw materials--including thread refining and assortment expansion, and
- further to improve the energy and materials economy.

#### Reconstruction and Modernization

Novel technological methods with high economic effects as a rule call for basic innovations in procedural techniques. That also is true of the high-speed spinning technology developed in our combine. It has allowed us to combine the spinning and stretching processes, which used to be sequential in the traditional method, and thus to simplify the entire technological process and improve the performance. That also raised the qualitative demands made on the ancillary products, which had to be taken care of by altering the polymeric technology. E.g., through using computers, a high product homogeneity was ensured, which greatly cuts down the thread breaks. In line with changing the technology, the needed aggregates for modernizing the outdated polymerization and spinning installations had to be designed and developed in such a manner that the buildings we had could still be used. That gave us the task to do what we could by way of thorough information and discussion about the new project, to attract the working people to the new labor sectors, in not only familiarizing them at a good time with the specific changes that would come in but also in providing opportunities for requisite retraining.

We had only 2 years to cope with the development, conversion and retraining. That challenge also meant a high risk to us. But we did face the task. For meeting this test, a campaign atmosphere was imperative which would mold the will of each to do his best. That sort of climate was formed through the efforts of the party, the trade unions and the FDJ together with purposeful actions taken by the official managers. Some research collectives also were reorganized to put the most capable people in the proper jobs and benefit from their elan. Altogether, all experiences known to us in expert management of development and introductory processes were fully used in carefully plumbing the experimental stage and thoroughly preparing and implementing according to plan all the steps leading to the operations in an industrial experimental

plant ready to produce. That has been and is a race against time. To save time, in parallel with these projects the premises were laid for the production process proper, so that the first production plants can go into operation according to plan.

The development of the method and needed technology by machine building was uniformly managed and controlled on the basis of the central science and technology state plan. For the different developmental stages the requisite targets were agreed on in tasking workbooks. The advantages of international division of labor were used in that a government accord arranged for bilateral cooperation with the USSR. The needed equipment, insofar as it did not come out of our own modernization, reconstruction and rationalization efforts, mainly came from the chemical plant construction combine and the Textima Combine. This attests to the effective and responsible support our project got from our cooperation partners.

#### High Management Requirements

Realizing such a complex and complicated tasks, calling for great economic resources for its development and implementation, demands uniform management and clear political guidance in mobilizing the whole combine collective for fulfilling the task assigned. The general director is fully responsible for taking care of the task. Assigning a project chief does not relieve him of that responsibility but helps him in better assuming it, e.g., in proscribing time losses and ensuring high-grade work.

The tough effort we engaged in to meet the schedule for the first phase of the "polyamid silk" reconstruction, proved once again as indispensable for success a high level management activity, a clear political stance, the readiness not to dodge obstacles but to overcome them with expertise and commitment. Mainly because this effort was uniformly organized and doubts about its feasibility were persuasively assuaged, it became possible in the party and research work collectives and among their production and technology partners to engage in creative and fruitful debates and cut red tape and cut out old habits. For instance, rating the work of individual researchers had often become a formal matter, and so there often was no genuine performance drive or it found itself blocked. Moral and material incentives would at times not sufficiently encourage individual and collective research performance. Some certainly had every chance to join the collective crowd inconspicuously or hide behind exemplary achievements of others.

The young comrades in research did exceptionally well in surmounting those problems. They set up an experience exchange with the Central Institute for Welding Techniques in Halle to get successful planning, working, incentive and control methods for R&D from there and use them in their own efforts. The experience exchange has borne fruit; it has contributed to the advances in R&D management that have by now become apparent.

Our approach today is to assign the most capable researchers and foremen to the toughest jobs, formulate ambitious targets and tasks for our scientific-technical work and account for them in brief intervals and stages, and use the performance principle consistently. Experience has shown how much performance-related

salaries for the scientific-technical personnel, based on precise leads and the proper rating of results, can be incentives for work. All the more important, we think, it is therefore to prepare suitable leads for each and everyone, so that an accurate performance rating becomes possible. Material and moral incentives are oriented to providing the scientific-technical lead that will guarantee the tempo needed for converting to practice and a high reliability. Confident collaboration and a creative atmosphere are as important there as immediately clarifying problems that might arise in order quickly to decide where to go from there. Streamlined reporting all the way up to the general director ensures permanent supervision over the work.

We have noticed that scientific-technical top achievements often are performed in collectives where experienced specialists and young skilled workers work hand in hand. This proven principle will be used still more in the future. Especially young cadre deserve the greatest managerial encouragement to have their abilities and elan placed on the right tracks and have them get chances to prove themselves. Outstanding results, for instance, have come out of the "high-speed spinning experimental plant" youth research collective. That was the progressive nucleus for the "high-speed spinning" industrial experimental plant now in operation.

Going into steady shift work is among the tasks of tomorrow for which we are getting set today. We have for that reason already passed a joint conception from the party executive, enterprise trade union management and enterprise management on the basis of which the future assignments of working people in our enterprise--mainly women--are thoroughly discussed within the work collectives, so that eventually, after personal talks with each individual, a solution can be found that meets both his own interests and economic requirements. That way we want to get set for the four-shift system.

Our great reserve as well as the guarantee for our success are found in our making full use, in an atmosphere of confident cooperation, of the available intellectual-creative capacities and high skills of the workers, both male and female, the technicians, engineers, designers and researchers, and of their dedication.

#### Advantages of the High-Speed Spinning of Polyamid Silk

<u>Parameters</u>	<u>Conventional Method</u>	<u>High-Speed Method</u>
Working Hours (h/t Silk)	207	57.5
Polyamid Mix per Spot (g/min)	120	140
Wind-up Speed (m/min)	1,000	4,000
Winding Volume per Setting (g)	2,000	7,500
Waste (in percent)	15.5	7.5
Higher Quality for the Textile Industry:		
Texture Thread Breaks (per kg Silk)	0.6	0.35
Spinning Flaws (per 100 kg Silk)	22	7
Effects of Savings in Steps in the Process:		
Saving Working Hours: 81 h/t Silk		
Higher Labor Productivity by Eliminating One Step in the Process: 290 percent		
Trimming Energy Costs: 12 percent		
Trimming Lactam Consumption: 51 kg/t Silk		
Trimming Material Costs: 460 M/t Silk		

## Educational Techniques, Goals Outlined

East Berlin EINHEIT in German Vol 39 No 5, May 84 (signed to press 10 Apr 84)  
pp 431-437

[Article by Prof Dr Helmut Klein, rector of the Humboldt University in East Berlin:  
"On Advancing the Younger Generation of Scientists"]

[Text] Personality, creativity, inventiveness, even passion are not replaceable by anything in science. Material-technical conditions and a suitable organization and such things are of course important prerequisites for successful R&D efforts, but the crucial impulses always come from the personalities and the collectives in which they are engaged. They decisively determine what our share will be in the principal science and technology developments in the world. and this is most essential for the continued successful implementation of the SED policy issued by the 10th party congress for the all-round strengthening of socialism and, hence, for the safeguarding of peace.

At the universities and colleges the younger generation of scientists, even simply in terms of numbers, represents a considerable potential. At the Humboldt University in Berlin, e.g., the younger generation of scientists now includes more than 3,000 research students, science candidates and science assistants. They are taking an active part in ongoing research, in the training and education of students and--for the medical field--in medical care. The university's performance balance sheet thus also is being determined by the younger generation of scientists.

At the same time, however, these research studies, candidacies and assistantships serve a more intensive training of these cadre so that as many of them as possible will quickly accomplish top achievements. Out of the group of the younger generation of scientists of today the top achievers of tomorrow must come, including the future lecturers and professors.

"Developing science according to plan and long-range, so that its progress-advancing and humanistic character takes full effect"\* implies our paying the greatest attention to the younger generation of scientists. That is a task with which a conference dealt in Dresden in 1977 that crystallized in the 18 March 1980 SED Central Committee Politburo resolution and became a key point at the Fifth College Conference.\*\*

Great efforts and fine headway have been made since 1977, yet gaged against present and, above all, future requirements, the results do not as yet suffice. "Men's knowledge and skill constitute the decisive lead for our country's performance growth," Comrade Erich Honecker affirmed at the seventh session of the Central Committee. "All facts indicate that the tremendous development of the productive forces will last. How we keep in step with it, that is in the final analysis determined by our country's economic rank and by the people's

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\*"Programm der Sozialistischen Einheitspartei Deutschlands," Dietz publishing house, Berlin, 1976, p 45.

\*\*Cf. Hans-Joachim Boehme, "Tasks in Forming a Qualified and Politically Firm Young Generation of Scientists," DAS HOCHSCHULWESEN, No 7, 1977, pp 162 ff;

standard of living."\* And so the natural scientists, technicians and mathematicians at our university are called upon to contribute to high dynamics in economic development in the fields of microelectronics and optoelectronics, chemical substance production, the materials and energy economy, robot technology and telecommunications transmission, biotechnology and data processing.

To conform to incorruptible international standards today and in the future, in fact, to be involved in setting those standards, a better quality and a faster speed still are required for advancing the younger generation of scientists. The younger generation of scientists is coming up with outstanding achievements that crystallize, e.g., in research results of great economic consequence and in international recognition. The positive balance sheet of 1983 includes 123 patent applications and 140 projects rated top scientific achievements in the university. The young scientists have a solid Marxist-Leninist and technical education; they are ready, able and politically motivated to dedicate themselves with high commitment to our socialist cause. Gaged against requirements, however, it often still takes too long for the young generation of scientists to come up with top achievements.

#### Ensuring the Selection of the Most Highly Qualified

Universities and colleges today get their young generation of scientists essentially in two different ways, either directly out of the students' circles (research studies, temporary assistantships) or by that qualified graduates after their successful practical activity are delegated or recruited for candidacies or assistantships. The vacancies for it must of course be fully utilized, otherwise there would be a gap even in quantitative respects. The second way, study--practice--and more studies at the college, is in many fields absolutely necessary, e.g. in all educational disciplines, and in other fields--technical, agricultural sciences and even some social sciences--it has also proven very effective. Certainly, a young scientist will then be older already when he starts his dissertation.

Our analyses indicate that the period of practical work often is too long. Experience, though, is not only a function of time. In the educational disciplines, I think, 2 years of basic experiences are enough because a researcher and college teacher relating to life will in teacher training never sever their ties with education in practice.

Our analyses further indicate that this practical period is most effective in rapidly qualifying the young generation of scientists if there already scientific requirements are being pursued, so that it will not merely make possible for the young generation just to try its mettle. In most cases a deal is made with the graduate on his returning to the college after a successful yet not too lengthy practical activity, and the deal should also concern the future field of work, the science problem to be attacked and the targeted acquisition of

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"Tasks of the Universities and Colleges in the Developed Socialist Society," NEUES DEUTSCHLAND, 20 March 1980, pp 3-4; "Hochschulkonferenz der Deutschen Demokratischen Republik, Zentralstelle fuer Lehr- und Organisationsmittel des Ministeriums fuer Hoch- und Fachschulwesen," Zwickau, 1981.

\*Erich Honecker, op. cit., p 29.

practical experience. Uncomplicated and confident cooperation between the college and its partners in the practical field is what the effectiveness of this way of study--practice--further science qualifications depends on. An enterprise or a school, understandably, would not like to release a very fine graduate again all so soon, yet they have to be persuaded to this need on behalf of accomplishing top achievements fast.

Close links with the practical field is a general principle for successful work in science. It must be incorporated in various ways in the overall development of the young generation of scientists; at our university, cadre exchange, e.g. with the television electronics plant or with enterprises in Angermünde Kreis, the chief cooperation partners of our agrarian scientists, has done a lot of good.

Those who are best qualified are the ones we want to put onto the tracks for further training in our young generation of scientists. They should mainly be selected from the students' circles, which does not preclude that special qualifications may sometimes not surface until after the studies, e.g. through outstanding practical accomplishments. There are such qualifications in the young generation of scientists if

- unusual talents\* for scientific work show up in some areas,
- a prominent will to perform exists, shored up by commensurate motivations and diligence, and
- the person concerned can safely be expected, due to his overall personality, fully to meet the high political and character requirements that have to be placed on him as a potential top achiever, e.g. as college teacher or foreman.

All those points must be seen in their unity. A member of the new generation of scientists especially gifted in a certain area is suitable only if he is at the same time highly motivated, socially active and closely tied to socialism. Conversely, great diligence and high political commitment cannot substitute for lack of talent.

The best qualified in this sense must purposefully be looked for right from the first day of studies, mainly of course by the college teachers, but also by the FDJ groups, which often can call attention to especially capable friends early in the game. Our experiences coincide with those of the Mehlhorns\*\* and other authors, who have said that normally special capabilities in one area go together with a highly developed general intelligence. Potential cadre in the young generation of scientists hence should mainly be looked for among the students who perform strongly in general and are especially dedicated technically as well as publicly.

In improving the relation between uniformity and differentiation in the students' training and education, our country's universities and colleges have made very

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\*For the concept of talent, cf., e.g., Edgar Drefenstedt, "Advancing Scientific-Technical Talents in the Secondary School," EINHEIT, No 4, 1982, pp 400-401; Gerlinde and Hans-Georg Mehlhorn, "Spotting and Advancing Scientific-Technical Talents," Ibid., No 3, 1981, pp 245 ff.

\*\*Ibid., pp 248-249

gratifying advances. We are naturally holding on as much to uniform model images of graduates and uniform study plans as to the endeavor to have each student reach his goal. At the same time, however, an early and intensive promotion of particular gifts and talents is accepted and practiced more as an essential task of socialist college education. The most efficient way to promote the most qualified is a scientific-productive setup of studies for all by involving the students in research, elective-mandatory and optional courses, which should have to be vivid and problem-rich courses inducing self-study and challenging self-reliance and creativity, assistance to setting up student research groups and so forth. The conditions for it have been greatly improved through the new study curriculum that provides for longer uninterrupted periods in which the students can do independent scientific work. Inasmuch as all students get enough opportunities during their studies to prove their science capabilities, diligence, dedication and political attitude and activity, those can be found who--through steady advancement--are able and willing to perform top achievements. Special attention should be given to those students who demonstrated high talent even prior to their studies--winners in mathematics Olympics, winners of the Lessing Medal, graduates of special classes, successful exhibitors at the Fair of the Masters of Tomorrow and so forth.

Our experience tells us that outstanding importance attaches to the commitment by the college teachers, to their contacts with the students in general and the best students in particular, with whom deals can also be worked out relative to individual variations in study schedules. Out of the larger circle of the best students then one has to select, by and large, the cadre for the different courses of development among the young generation of scientists.

The objective in advancing the best students is to achieve qualifications that exceed the measure that applies to all students, and often that goes hand in hand with gaining time: Training in additional foreign languages or higher proficiency in them, training in contiguous fields, own efforts in preparing dissertations early, or speed-up in the defense of the diploma or dissertation. In 1983, e.g., because of their studies along individualized plans 16 of the circa 250 medical graduates in our university, at the end of their sixth year of studies got their Promotion A immediately after their diploma. That was the outcome of intensively advancing those students, according to plan; it had been started in their first years of studies.

#### Advancing the New Generation--A Complex Process

Once those who are best qualified are admitted to the circle of the new generation of scientists, the rate of their further development and the level of their achievements depend on how the time of their research studies, candidacies or assistantships is used. Advancing the new generation is a multilayered and complex process, inseparably linked with nearly all sides of the scientific and public life at the university, so that it cannot be influenced by just one organizational measure or another or any particular stipulation in any pervasive manner. So there is an unequivocal connection between the level of scientific activity in one field and the rate and results of advancing the new generation as such.

Wherever research is done along clear conceptions and with a high dedication to scientifically and practically significant problems, and where there is a vivid and demanding scientific life and a political atmosphere imbued with the socialist values and norms, young scientists advance fast and the results are in part outstanding. Once this development of the new generation remains the concern of party and state management and the trade union and the FDJ take account of it, and when there are long-range developmental conceptions and cadre programs aligned with them, the conditions are sound for a purposeful promotion of the new generation according to plan. Note that this process involves something highly subjective, the creativity of personalities. We advocate most cautious planning.

But that has nothing to do with routine and formalism. On the contrary, such phenomena would only hurt the personality formation process.

Our analyses have brought out some phenomena that are either beneficial or detrimental to the process of developing a new generation:

--Cadre motivation and dedication develop best if clear ideas are there from the very first day about the goal and some research already started (e.g. in connection with a thesis) is continued. Often, however, time is wasted at the start of the qualification phase in that the topic is compellingly set down only after months have passed, sometimes even not until the end of the first year.

--It has been found to be definitely beneficial for the graduation project to be a firm element of socially highly significant research projects, such as official missions or state plan themes, and must, after strict time requirements, come up at a specific time with results, lest the whole project is jeopardized. Such incentives growing out of the matter itself can speed up things more than constant tutorial admonishments can.

--As at the start time is often lost because the topic was defined too late, time can also be lost at the other end of it in that there comes an insistence on the traditional form of a doctoral dissertation, for instance. What we are dealing with here, though, is a demonstrable advancement of knowledge the candidate has produced. That advancement is attested to even today, and all the more so in the future, by patents perhaps or publications, or practical changes and such. If the advancement in knowledge, the candidate's scientific achievement, is clearly demonstrated in this fashion and the level requirements for the promotion have been fully met, it is not necessary for those results to come out once again in the form of a dissertation.

--It is well-nigh self-evident that a plan exists for the development of the new generation of scientists. Not always, though, all consequences of planning are settled in time. Many intended studies have to be shored up materially, technically, organizationally, family and social obligations have to be taken into account--especially for women--and such. Planning absolutely must relate to the development of the total personality, it must not be confined to scientific investigations. It must be set down ahead of time what courses are to be attended and what areas are to be left to self-study, when and to what extent the young scientist gets drawn into the training and education of the students

or which organizational or science management tasks are to be entrusted to him. Especially important is to make arrangements about his further political development. That may involve a research student or assistant in the opportunity to try his mettle in a responsible public function and gather managerial experience there.

The time needed for it must be allocated; altogether, the planned activities must not ask too much of him. As members of the new generation of scientists are highly qualified and motivated--normally in many areas--it is understandable that when new and important tasks suddenly arise some managements tend to resort to the "reserve" in the new generation of scientists. But that amounts to downright interference with rapidly training the young scientists and therefore has to be prevented. Each management thus is well advised to secure the realization of the plans mentioned by setting down appropriate rules and, above all, to start supervising them early in the game.

--Much depends on the commitment and a rational mode of work by the new generation of scientists itself. They are willing to use much of their spare time for their science because they consider it a prerogative to be allowed fully to deal with tasks that are interesting, partly even exciting and fun, even if there are of course stretches of laborious and, in part, quite undemanding trivial work to be taken care of. Yet such self-discipline, absolutely necessary for scientific work, must first be learned by many. And this is a matter many college teachers in charge still underrate.

--Advancing the younger generation of scientists is, legally and morally, one of the most important obligations of every college teacher. Many of them are fulfilling their obligations to advancing young scientists with great commitment, have their own close circle of students made up of the best students of several study years, some that have been especially advanced (including even some working outside the university) and at least two to three potential successors in various age-groups. With such a close circle of students a college teacher will work most intensively, having a personal and close contact with it. One may say with a good conscience that most professors and lecturers are facing the requirements arising from it and are working accordingly. And yet there are still professors and lecturers who do not yet take adequate account of their obligations resulting from the needed advancement of the especially gifted.

At times the objection is raised that such notions are nostalgic, taken over from a time when there were not many students, and totally unrealistic for a "mass university." The term "mass university" does not apply at all to the colleges in our country. The largest one of them, the Humboldt University in Berlin, has circa 13,000 full-students. That is a plausible magnitude even by international comparisons. With approximately 900 professors and lecturers, we get an average ratio of one college teacher for 14.4 students, and for a little more than four members of the younger generation of scientists (research students, candidates, assistants). The situation differs among the various disciplines, to be sure, but on the whole we may say emphatically that exceptionally favorable preconditions exist for the teaching staff to do clearly individualized work with the students and the younger generation of scientists, they only still have to be better utilized.

College teachers are engaged in broad discussions of the most appropriate style by which to guide the younger generation of scientists and about the work undertaken within a close circle of students. Members of the younger generation of scientists at our university, queried about what they thought was the principal function of the college teacher in taking care of them, fairly unanimously emphasized the following:

--Most important would be for college teachers to organize an interesting scientific life, purposefully engage in demanding research, and include the students in it, who should be given responsibilities, and to be exemplary college teachers and politically active citizens and educators. They expect "encouraging interest" and time of their tutors and want feedback as criticism as well as recognition. None of them said practically anything about wanting brief deadlines of their college teachers that would, on the short leash, as it were, lead them safely toward their goal.

--They mainly want help in problems of method, and they are hoping their college teachers will facilitate their starting out in the scientific arena in that, by means of their authority, they open up publishing opportunities for them or help them attend national and international conferences.

--Finally, they expect their college teachers will help them in gaining clear views about their own personal perspectives.

These accounts here are far from having given a complete picture of the web of conditions and considered all tasks and consequences that determine the developmental process of highly creative socialist scientists. Yet I hope I have brought out some important handles for coming to cope still better with that process. But I must absolutely add one more remark, which I could also have made at the beginning: An indispensable prerequisite for greater successes in advancing the younger generation of scientists is the clear perception by all who are involved in this of the political-ideological significance of this task, its place value for the continued successful development and strengthening of socialism in the GDR, and thus for the safeguarding of peace. That is the main field for the work of the party organization and, under its leadership, the work of the youth association and all other public organizations. Accomplishing top achievements meeting the highest international standards is most definitely a campaign task of great public consequence. It calls for rapidly developing class-conscious socialist top capacities and for setting up the most favorable conditions for that.

## Automation Achievements, Features

East Berlin EINHEIT in German Vol 39 No 5, May 84 (signed to press 10 Apr 84)  
pp 457-460

[Article by Heinz-Dieter Haustein, head of the academic area of innovation procedures at the Institute for Socialist Economic Management of the "Bruno Leuschner" University for Economics in East Berlin: "Flexible Automation--New Quality in the Development of Production Strength"]

[Text] The 10th SED Congress referred to flexible solutions in automation as those lines of development that are of primary emphasis in our country's intensively expanded reproduction.\* At the fifth Central Committee session, Comrade Erich Honecker made it explicit that tasks connected with that should be tackled resolutely and implemented quickly so we can continually offer the latest products and react flexibly to world market requirements.

Flexible automation does not mean any sort of partial development of science and technology nor any one of the many modifications of automation technology. As one of the most significant basic innovations or revolutionary changes in the productive forces today and in the future, it is among those qualitative changes of the material-technical base that must be clearly differentiated from quantitative evolutionary improvements based on, in principle, established technical solutions that Marx referred to as a "more quantitative expansion on the given technical foundation."\*\*

Flexible automation, in view of the effect it has on efficiency, is a new qualitative level of automation. That is mainly due to the time and cost structure of the modern reproduction process. Integrated circuits, e.g., are made in a few hours, even in minutes. But to be able to produce them, one needs--not last because of the expensive design and technological ways of getting them started--a total production and circulation time of months. A pair of men's socks can be made in a few minutes, but the time for the order to run through takes some weeks. In small series production in machine building, according to international information, an average of 55 percent of the time goes to design, procurement and work preparation, 22 percent to production, and 23 percent to assembly. The manufactured piece sits in the machine only at 5 percent of the time. Of that again only 30 percent is used for the processing itself, the main process, while the rest goes for auxiliary functions such as loading, positioning and tool change.

A decisive speed-up of the reproduction cycle, attested to by a corresponding efficiency improvement, can be achieved by automating the whole process. In its original and so far predominant form--as sole purpose automation--this way, however, leads to highest economic effects only when we are dealing with mass commodities that have a fairly long shelflife and are much in demand so that installations especially developed for them are worth it, even when expensive.

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\*Comrade Erich Honecker, "Bericht des Zentralkomitees der Sozialistischen Einheitspartei Deutschlands an den X. Parteitag der SED," Dietz publishing house, Berlin, 1981, p 50.

\*\*Karl Marx, "Das Kapital" Vol I, "Werke" (Works), Vol 23, Dietz publishing house, Berlin, 1962, p 473.

In vast areas of the economy, however, the fast scientific-technical development of new products and of the needs diversified as to the various fields of application compel the production of small and medium-size series. On the world market increasing profits become possible through highly innovative products and "tailor-made" fabricates that cannot be manufactured in large volumes, much more so than through standardized mass commodities.

In conventional series production any conversion to new products has been costly in terms of time and funds because the means of production and expensive control units had to be replaced by new ones or had to be converted, which also made high demands on the working people. Then came microprocessors and ever more control electronics, increasingly more worth the money, which together with the advances made by traditional automation techniques themselves (in the forms of digitally controlled machine tools, industrial robots, and integrated processing systems) introduced a way out of this situation. That was a qualitative leap in automation first appearing in the forms of flexible automation.

Flexible automation is the automation of the production process for rapidly changing assortments of products on small or medium-size orders. The idea is to boost productivity more than average, greatly reduce the running times for orders, and be able to react fast to changes in demand and market requirements. This is done through a computer-aided coupling of digitally controlled processing units--flexible robots handling the fabricates and tools--with automated transport and storage facilities and with computer-aided quality control and production direction and preparation.

Microelectronics makes possible for changing production assortments what traditional sole purpose automation could only do when the production program remained constant: a high performance with a minimum of downtime and delay and storage time. Small series can then also be produced most efficiently as a high performance, short running time for orders and a relatively small demand can be combined.

For instance, in the 1960's the automatic machine assembly lines for the production of electric bulbs, as a typical mass product, were strictly tied to their purpose and produced far above the need of any given country. But even the traditional bulb is subject to technical progress and is needed in many variations. Therefore, since the late 1970's new flexible bulb assembly lines were developed that can be used for 30 and more variations of sockets, coils and forms of glass.

Flexible automation, already used for heat run production, e.g. in the paint industry, and in small-tonnage chemical production, has found its own domain thus far in the metal working industry. That is where roughly half of the small and medium-series production goes on. And that precisely is the reason why the elements of flexible automation started primarily in that industrial sector.

The elements of flexible automation include  
--digitally controlled machine tools, commercially first introduced in 1955;  
--flexible, freely programmable industrial robots, commercially first introduced in 1962;

- flexible fabrication systems, i.e. computer-controlled combinations of fabrication units and robots with transport facilities for moving workpieces and changing tools;
- computer-controlled industrial transport and storage systems including disposition (logistics);
- computer-aided quality guarantee systems;
- computer-aided development, projection and design; and
- computerized planning and balancing.

Then there are various combinations in practice, as computerized production and computerized production preparation and certain ties between them.

Many industrial countries are working hard on designing computerized production systems that include both production preparation and the manufacture. For that there is only one way--automating the engineering and the manufacture on all levels "as the outcome of which production gains flexibility and efficiency, and human labor almost disappears. Production flexibility means optimum competitiveness and commodity productivity."\*

At the economic sciences conference, Comrade Guenter Mittag explained that labor productivity could be increased fast if one did not concentrate merely on the immediate production process but also used the chances inherent in the antecedent and subsequent processes. "Automated design alone makes possible a twentyfold productivity boost in making technical drawings--mainly by decisively cutting back the time it takes. That provides almost as important a potential as trimming the labor costs."\*\*

There are mainly the following properties of flexible automation marking the economic importance of such an "exceptional productive force" (Marx):

First it makes possible to put high-grade new products extremely rapidly into production, to produce at low costs and to react rapidly to the customers' wishes.

Second, it makes possible reaching maximum production capacities very soon after starting the new product, which rapidly conforms to the wishes of the population and of the economy and much better ensures international industrial competitiveness.

Third, it accelerates the whole reproduction cycle down to selling the products successfully, which saves a lot of currency.

Fourth, there is a much higher capacity use of the installations.

Creating such high effective automation means a challenge to the creative capacities in the enterprises and combines and, hence, to the political ideological work for forming such capacities. Together with solving central strategic

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\*P. Belyanin, "Flexible Manufacture," PRAVDA, Moscow, 6 March 1984, p 2.

\*\*Guenter Mittag, "Oekonomische Strategie der Partei--klares Konzept fuer weiteres Wachstum" [Economic Party Strategy--A Clear Concept for Further Growth], Dietz publishing house, Berlin, 1983, p 79.

problems--such as ensuring the production of flexible modules, the needed control units and computer technology, and the necessary software--intensive deliberations, skilled management activity and a high commitment in the combines, especially also in the work collectives and research sectors, are imperative. Understanding that so-called insular solutions in flexible automation might be unavoidable at the beginning yet are of much lower benefit than complex solutions are is prerequisite to devoting all-out efforts to such solutions, in conformity with the orientation issued by our party. The larger complexes of flexible automation--combined with pervasive organizational solutions including ancillary supplies--are what ensures a high performance and efficiency thrust.

In all efforts at introducing complex solutions one must always consider, of course, that the efficient production equipment of our industrial combines must be pulled into this process. Half of the equipment there is fully or partly automated, and one out of every five pieces of equipment has electronic controls. These potentials have to be utilized in "a complete automation of whole production sectors and enterprise departments."\*

There has been much experience in our country in getting set for operating partly flexible automation, with the machine park available being integrated after being modernized by means of computer technology. That is true of the rapid expansion of the flexible process robot, the digitally controlled machines and the use of flexible production cells since the start of the 1970's. There also are many positive results in computerized production preparation. The Erfurt Forming Equipment Combine may be adduced as an example. In that combine, the use of devices from the GDR and other CEMA countries for the entire technical preparation of large machine building groups and the materials economy greatly speeded up the processing of orders and had significant economic effects. The Leipzig Spring Fair indicated our ever improving prerequisites for greater and faster advances in our whole economy.

Flexible automation in production preparation also makes new demands on management and planning. First we must quickly generalize the experiences of the initial users and intensify the information flow on flexible automation problems. That the projects are worked out comprehensively, including their public demands and consequences, and the working people are already drawn into that phase, as they are the ones who later have to do the work, is of great public consequence. Research-production and users communities can help in prudently use the advantages of socialist society in this field.

In line with the orientation that came from the fifth Central Committee session, some complex flexible automation projects are being worked on in the GDR, as the world market capability of our industry greatly depends on that.

In practice, two strategies are being pursued worldwide in the field of flexible automation. First it is a matter of further expanding and gradually improving the proven elements of flexible automation, like the flexible process robot and the automated fabrication systems. Increasing value is attached to their being compatible with complex solutions of the future. Secondly, it involves a direct

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\*Ibid., p 81.

development of complex flexible automation solutions. Working on that calls for large scientific-technical potentials toward furnishing fine overall results fast through being used at well coordinated time spans.

For quickly generalizing best experiences with the use of computerized developments and the production preparation for commodities, performance comparisons in this field are becoming more and more important. Comparisons of the capabilities in existing systems indicate considerable expansion potentials of the performance spectrum. For the shoe manufacture creative solutions were worked out that can also be used in machine tool construction and the entire consumer goods industry.

Experiences from the development and conversion of computerized construction and production indicate new questions also have to be resolved here in economic cost accounting and in financing and granting credits for important innovations in their introductory phase. Flexible automation, as a new complex in the development of production strength, is a challenge to the working people, mainly to the managers on all levels, to meet the technical, economic, training, public and awareness aspects in scientific-technical development by leads, a richness of ideas, conceptual clarity, dedication and target-directed political leadership.

### Communist International Book Reviewed

East Berlin EINHEIT in German Vol 39 No 5, May 84 (signed to press 10 Apr 84)  
pp 470-472

[Review by Prof Dr Siegfried Vietzke, deputy director of the academic area of history at the Karl Marx University of the SED Central Committee, of the book "Die kommunistische Internationale 1919-1943--Ihr weltweites Wirken fuer Frieden, Demokratie, nationale Befreiung und Sozialismus in Bildern und Dokumenten" [The Communist International 1919-1943--Its Worldwide Work for Peace, Democracy, National Liberation and Socialism in Pictures and Documents] by a collective of scholars headed by Gisela Jaehn, Dietz Verlag, Berlin, 1984]

[Text] The events, struggles and revolutionary moves relating to the nearly 25 years through which the Comintern, founded on Lenin's initiative in March 1919, was active, were seldom recorded on photographs and films. Many Comintern parties had to fight deeply underground for many years, which precluded photos of them right there, while some were irretrievably lost due to wars, police terrorism and the counterrevolution.

All the more remarkable is the volume published by a collective of scholars headed by Gisela Jaehn of the SED Central Committee's Institute for Marxism-Leninism, recording the Comintern's worldwide work for peace, democracy, national liberation and socialism in numerous pictures, documents, maps and other materials.

Carefully chosen remarks from V. I. Lenin, Georgiy Dimitrov and other leading Comintern functionaries and excerpts of congress documents and resolutions of its executive organs on the tasks, substance and effect of the communist world movement supplement the impressive illustrations. The scholars' brief, scholarly sound, footnotes and the perceptive captions for the pictures and texts will remind the reader and students of our days particularly of the worldwide character, diversity and difficulties, but also of the effectiveness, of the communists' struggles in the first half of the 20th century.

Material was made available by science institutions, archives, publishing houses, agencies and other facilities in the GDR and many communist and workers parties in different countries. The collective of scholars has known how to turn it into a representative volume of pictures and documents that meets the highest scholarly demands. It has thereby made a worthy contribution to the 65th anniversary of the founding of the Comintern and a still-to-be-written history of this revolutionary organization of the international workers class which had a great impact on the historic process between 1919 and 1943.

The wealth of pictures, documents, survey maps and texts remind the reader of the enormous historic changes since the founding of the Comintern for the good of progress--not last because of the Comintern. Evolved out of the worldwide mass movement against the imperialist 1914-1918 war and inspired by the Great Socialist October Revolution and the experiences of the Bolsheviks in Russia, the Comintern promoted the genesis of communist parties all over the world and helped them develop into genuine Marxist-Leninist parties of struggle, that learned better and better to work out the strategy and tactics for the social and national liberation of the peoples in conformity with the conditions in their countries.

The scholars are coping well with the difficulties, in a publication of this sort, of pictorially and documentarily presenting the process of creatively enforcing and further developing Marxism-Leninism in the communist world movement. The comprehensive Comintern history that still has to be written is likely to penetrate those problems still more deeply.

The volume elucidates throughout: The tough yet successful construction of the new society in the Soviet Union, the defense of the emerging socialist social order in the USSR against the internal counterrevolution and imperialist intervention, and finally the heroic, victorious struggle against the Hitler-fascist aggressors in the Great Patriotic War were the most important contribution by Lenin's party to the consolidation of the communist world movement and the awakening and spread of the national liberation movement all over the world. Equally visibly is brought out how the young communist parties themselves did all they could--e.g. in the "Hands off Soviet Russia" movement--to defend the homeland of the first victorious socialist revolution and the then only state bastion of peace in the world against anti-Sovietism, provocations, threats of war and aggression from the imperialist powers, by which they made an important contribution to the consolidation of socialism.

While the scholars at the start and during their account are documenting the genesis of communist parties in various European and other countries, it becomes especially impressive at the end of the volume how in connection with the military successes of the Red Army in its fight against Hitler fascism, and often on the initiative and under the leadership of the communists, national resistance and liberation movements evolved. Their struggle against German and domestic fascist suppressors in some of those countries turned into people's democratic revolutions.

More visibly and persuasively than many printed texts, the picture documents, facsimiles of posters, leaflets, flyers and the survey maps demonstrate the profoundly internationalist efforts of the communist world movement in the 1920's, the 1930's and the early 1940's. The Comintern initiated proletarian internationalism and anti-imperialist solidarity; in no way could it ever think or act in a Eurocentric manner. It found its field of action on all continents; its efforts in the colonies and dependent countries became prerequisite to the final abolition of the colonial yoke and national enslavement.

Soon after being founded the Comintern supported the national liberation movement evolving in 1919 and 1920 against foreign imperialist domination in Korea, Egypt, India, Afghanistan, Turkey and China. The anti-imperialist national liberation revolution in China met with worldwide Comintern solidarity and was aided by the International Workers' Aid and the International Red Aid, both Comintern initiatives. With steady solidarity it sided as much with the rebellious Rif Kabyles in Morocco and the Syrian people fighting against the French imperialists as with the Indonesian people opposing the Dutch colonial power in the mid-1920's. Unforgettable also as a hallmark of international solidarity are the worldwide communist movements against U.S. class and race injustice and its victims, Sacco and Vanzetti in 1927/1927, and the falsely accused and innocently convicted "nine negro boys" of Scottsboro in 1931 and the aid given to the Afro-American population under the yoke of U.S. imperialism.

There is impressive evidence here for the worldwide Comintern solidarity movements. The efforts by the Comintern and its parties against armed U.S. intervention in the last 1920's and early 1930's in Nicaragua, Honduras and Cuba are as much accounted for as is the international protest movement against the Italian fascists' brutal war against the Ethiopians from 1935 on. It is understood that this volume pays tribute to the sacrificial international solidarity of communists, social democrats and other antifascists with the Spanish people defending itself from 1936 to 1939 in a national-revolutionary war against the fascist mutineers around Franco and against German and Italian fascist intervention, and to the heroic struggle of the International Brigades.

This is what the pictures and documents make evident: Since in the early 1920's fascism appeared as a manifestation of the general crisis of the capitalist system, the Comintern tried hard to disclose its class nature and roots in the most aggressive imperialist circles and mobilize the working masses for the antifascist struggle. Wherever it became a matter of defending or recovering the peoples' democratic rights and liberties, the communists took their place in the front rank of the fighters. They were the ones who advocated the united front with the social democrats, unionists and Christian workers. At its Seventh Congress in July and August 1935, the Comintern proclaimed the idea of setting up anti-fascist popular fronts and directed the communists' struggle more resolutely still against fascism and for preserving the peace.

It becomes clear on how fruitful a ground this popular front idea fell in the 1930's in France, Spain, Brazil, Argentina and Chile, but also among the German antifascists underground or in exile and in many other countries, proving itself in the struggle against Hitler fascism and its war policy through giving rise to national people's fronts.

A wealth of material makes fully convincing: The Comintern was the most resolute and decisive initiator of the peace struggle. It consistently carried on the antiwar struggle of the leftist forces in the international social democracy from before and during World War I, unmasked the originators of wars, and realized the new chance to prevent imperialism from unleashing military adventures, in conformity with the Soviet policy aimed at preserving the peace. One of its great historic achievements was to have disclosed early in the game the dangers to world peace and the peoples' freedoms emanating from fascist German imperialism.

On the initiative and with the decisive participation of the Comintern, the international congress against imperialist war was held in Amsterdam in August 1932. That the communist world movement, struggling against the threatening war and for ensuring world peace, championed the broadest alliance of all genuine pro-peace forces, was also brought home by the world youth congress against war and fascism in Paris in September 1933, the militant congress against war and fascism in Zurich in May 1934, and the international women's congress against war and fascism in Paris in August 1934--to mention only a few of the many documented examples. As true allies there stood communists alongside the social democrats, liberals, Christians of all denominations, pacifists, members of all classes and strata of the peoples and representatives of the most diverse political trends. To create conditions to keep mankind at peace stems from the deeply humanistic motives in founding and activating the Comintern. This aspect of its efforts admonishes us to do all the more today to prevent the most reactionary and aggressive circles, above all of U.S. imperialism from unleashing a thermonuclear catastrophe--which also is thoroughly documented in the present volume.

## Agriculture Book Reviewed

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pp 472-474

[Review by Prof Dr Kurt Groschoff, research section head at the Institute for the Political Economy of Socialism in the SED Central Committee's Academy for Social Sciences, of the book "Intensivierung der Landwirtschaft" [Intensification of Agriculture] by a collective of authors from the Academy of Agricultural Sciences, Dietz Verlag, Berlin, 1984]

[Text] The further development of agricultural production, on which depends the stability and steady improvement of supplying the population with high-grade foods and industry with raw materials, can rely only, in view of the changed reproduction conditions, on intensification at a new quality. Intensification must no longer be capital-intensive but capital-saving. We need higher "effects from the resources used--the labor, the soil, the livestock, the energy sources and materials, and the capital assets" (p 17); we need resources-saving growth (cf. p 27). That is attainable through a better and more complete utilization of the opportunities connected with and given by scientific-technical progress. That is the guiding thought of this study, prepared by an Academy of Agricultural Sciences collective and devoted to socialist agricultural intensification under the conditions and requirements of the 1980's.

It gives access to the various questions that have to do with the higher demands made on intensification, not only to experts in practical operations, but to a wide circle of general readers as well. It familiarizes with major aspects of the related processes and explains the great number of interconnecting tasks. The authors indicate developmental trends and substantiate them by very many data. This is the first attempt at treating agricultural intensification processes comprehensively.

What is new in the intensification requirements in the 1980's is to work out and draw the inferences from it for crop and livestock production, labor productivity boosts and capital assets reproduction, showing how deeper cooperation can contribute to more efficiency in the agricultural reproduction intensification process and what demands are to be made on socialist industrial management, and what the priorities are for improving state management and planning. All that is taken care of by the structure and substance of the study. Anyone who wants to find out why rural intensification entails a more efficient cooperation among agriculture, the processing industry and commerce for supplying the population with high-grade foods, and what is to be done about it, will find many worthwhile suggestions here.

Ensuring a great agricultural performance improvement means granting a key role to the development of crop production. It is the basis for growth in agricultural raw materials production and for supplying the population with foods. It also is an important oxygen source and greatly helps preserve and improve the natural environment. Intensification aims at making ever better use of natural conditions, preserving and improving soil fertility, and using live labor, technical energy and all funds in such a way that maximum volumes of agricultural

products are made available steadily and in conformity with changing needs. In the 1980's, we must "increase more rapidly the production volumes and hectare yields for all varieties than the expenditures per acreage" (p. 68). That calls for a fundamental turning point in the development of yields and expenditures; it is attainable if all intensification measures are correlated with one another in a complex fashion.

Let us take the grain production--the food and fodder base in livestock production. The LPG's, VEG's and their cooperation partners are under the challenge here to choose the most productive and safest grain varieties per site, resolutely abide by sound scientific parameters and normatives, and correlate all organizational operational measures with one another. Grain varieties must also be incorporated correctly in stable crop rotations, agronomic discipline must be observed. Using the equipment economically and harvesting, drying and storing the crop with little loss only is equally important (cf. p 72).

What reserves there are in the production and quality of bulk forage (cf. pp 73 ff), which may be tapped by improving the cultivation structure and site distribution (cf. pp 77 ff) is presented as clearly as ways are shown to overcome unjustified disparities in yields and expenditures (cf. pp 87 ff).

Crop production intensification is crucially important for further performance improvements in livestock production; yet its effects would be diminished were one not to intensify also especially there at a new quality and fail to use the available resources, the labor, the structures, the means of mechanization, the fodder and the energy sources, with improved economic consequences. What can be done to use livestock herds more efficiently, how an efficient forage economy is attainable, and how much importance attaches to the rationalization of the stables and installations--all that is worthwhile reading about, also in view of the many computations made about it.

One consideration deserves special mention: With an improved performance, the annual forage requirement per animal increases. Yet per production unit that can be greatly held back if one uses the fodder more efficiently. So one can take care of the planned production volume at a higher livestock performance by reducing the fodder volumes on the whole (cf. p 104). If in addition one considers that when the livestock performance increases one can get along with fewer animals, and a smaller number of stalls, one can get some idea of the essential effects of performance-promoting measures in enforcing a resources and capital saving intensively expanded socialist agricultural reproduction.

Measured against the net product, the labor productivity in socialist agricultural enterprises,, comparing the average values of the two five-year plans of 1961-1965 and 1976-1980, grew by 2.4 times, against the end product, by 3.4 times (cf. p 131). Even so, to meet the high demands of the 1980's, more of a labor productivity boost is needed--partly also in order to surmount the disproportion between the demand for and supply of manpower still existing in many places. All the more important it is to attain, on the basis of available fund allocations, a labor productivity growth through a better utilization of the labor capacity and the material production funds. That calls not only for developing new technologies, modernizing the extant equipment, and closing mechanization gaps. It also requires a more consistent application of the

scientific labor organization, a comprehensive implementation of the performance principle, a purposefully organized competition, and a deepened cooperation among the territorial production units. In livestock production that means, e.g., not only creating a larger performance potential through breeding, but also a high-grade livestock maintenance, daily feeding fodder adequate in nutrient proportions and well balanced in structure, reducing livestock losses and a conscientious veterinary care for the livestock herds (cf. p 135).

Special attention is warranted for the remarks on basic assets reproduction. They have assumed considerable dimensions in socialist agriculture. Through them the scientific-technical progress largely takes effect in further improving output, labor productivity and efficiency. Their intensively expanded reproduction puts the highest place value on rationalization. It, after all, makes possible enhancing the effect of the means of production on the basis of what is available, using the labor capacity more efficiently, and making better use of the soil, the chief means of production. Worthwhile ideas are conveyed on the measures set by rationalization as the decisive form of basic assets reproduction in crop and livestock production, which measures have to be taken to conform to that, and what this means in transport, transshipment and storage processes. It is correctly pointed out that this rationalization becomes all the more successful, the more closely it is linked to territorial rationalization.

Even if some accounts might still gain something by compelling arguments, in that there are somewhat redundant repetitions and one might have been better advised to give some deeper explanations, e.g. of the uniformity in the agricultural reproduction process, still this is an extremely informative study for anyone interested in the intensification processes going on in our socialist agriculture and seeking advice and counsel on how to do it.

## GDR-Japan Relations Reviewed

East Berlin EINHEIT in German Vol 39 No 5, May 84 (signed to press 10 Apr 84)  
pp 474-476

[Review by Dr Harry Klug, political staff member of the SED Central Committee, of the book "Die DDR und Japan" [The GDR and Japan] by a collective of authors headed by Hans Modrow, Dietz Verlag, Berlin, 1983]

[Text] Visiting a foreign country still remains an adventure, especially when it is more than 10,000 kilometers away. This island empire, poor in raw materials, with a population of over 118 million at an area of 378,000 square kilometers--a little larger than Norway, smaller than Iraq--now is the second strongest economic power in the capitalist system. It has long overtaken the EC states and the United States in many fields. Countless books and articles have been written that are coming to grips with the "Japanese model" and exploring the causes of the country's development.

What with the increase in contacts between representatives of the governments, the economy, the parliaments and other public organizations of the GDR and Japan, and the growing cooperation between the two states in the economic, scientific-technical, cultural and other fields, our republic also has a greater need now to penetrate more deeply into the nature of these relations. What links these two countries and peoples? What stands between them? Where are the historic sources for the relations between the two states? Which factors effect their emergence and consolidation? What opportunities and chances do they provide?

The authors of the present book are facing these questions by presenting--a first in our republic--a brief, cohesive and vivid account of the instructive history of the relations between two highly developed industrial states with differing social orders. Actively involved in the GDR-Japan encounter--e.g. the head of the authors' collective, Hans Modrow, in his capacity as the chairman of the GDR-Japan parliamentary friendship group set up in 1972--they are tracing the initial contacts in the athletic field and vividly describe the gradual collapse of Bonn's notorious sole representation presumption, that violated international law, which had also been the chief obstacle to normalizing GDR-Japanese relations.

Impressively the authors portray the ever denser web of diverse contacts and relations after the two states in May 1973 assumed diplomatic relations. To trace the lines in the economic field: GDR-Japanese import-export was 2.9 times as high in 1981 as in 1975. The GDR mainly supplies machine tools, electrical engineering and electronics commodities, scientific equipment construction and chemical installation products, and chemical and metallurgical commodities. Japan supplies electrical engineering and electronics commodities and products in the automobile industry and is building 17 large industrial and construction projects in the GDR. The trading of licenses and know-how and scientific-technical collaboration are growing fast (cf. pp 101-102).

The authors properly rate Comrade Erich Honecker's state visit in Japan in 1981 as a starting point for a new phase in the interstate relations that includes the expansion of economic cooperation and the founding of the Japan-GDR cultural society as much as the cooperation between radio and TV stations and between publishing houses in the two countries. By handing over the "people's friendship"

pillar that the Peace Council of the GDR had donated for the memorial and commemorative peace park in Nagasaki, Erich Honecker symbolically corroborated the GDR's will to peace and the conviction "that there is no reasonable alternative to the peaceful coexistence policy. That way alone can peace be made permanent. What our peoples have laboriously built up after World War II through the work of their hands must never again go down in cinders and ashes" (p 144).

Interesting as the events are that punctuate the course of GDR-Japanese relations--a deeper understanding of their historic dimension comes out fully only in the scientific evaluation the book offers, and this mainly under two aspects. First, the authors analyze the inner connection between the basic tendencies in international development and the GDR's active foreign policy toward a major imperialist country. They sharpen the reader's perception of the historic inevitabilities in our era in comprehending the impulses of opposing basic lines on the international plain. Thereby they also provide the evidence--incorporated in the field of tension of those lines--for the GDR's contribution--in conformity with its allies' contributions--to the peace, security and cooperation among states with differing social orders.

Second, the present work gives insight into what is specific in Japan, its political, economic, and social problems and contradictions. Among the specifics in comparison with other, comparable capitalist countries, the authors suggest "that the state monopoly regulatory mechanism, its interlinkage, is nowhere else as rigorously orchestrated as in Japan" and contemporary capitalism has taken over and cultivated with success from Japanese history "those elements that combine a collective performance awareness with the personal integration of the individual in this society. That asked for great sacrifices over decades, and they were not all voluntary. Besides, for many years Japan invested fairly little in military sectors" (p 12). These are the specifics in which the authors find the causes for why the effects of the crisis-ridden development of the capitalist world economy have thus far hit Japan less than the other major capitalist countries. From this particularly close interaction between the state and the economy in Japan they also explain why representatives of Japanese economic circles --in an enlightened self-interest and in conformity with their economic and economic strategy goals, in view of sharper competition on the capitalist world market--are the most active forces in the development of relations with the GDR.

In the outcome of their analysis the authors arrive at the conclusion that GDR-Japanese relations "followed, reinforced and extended over wide stretches certain basic tendencies in international relations development, but did not yet put forward and decide much on their own. Yet what has been achieved is still important and propitious." These mutual relations have become "a stabilizing factor in the world" (p 146). The foundations for peaceful cooperation that were laid have been "of benefit not only to the directly participating states but also for safeguarding peace all over the world, exemplifying how states with differing social system can meet and cooperate in terms of peace and progress" (p 19).

Whether GDR-Japanese relations will become stronger and more effective, "is always 'in the land of the rising sun' subject to tension and conflicts--as it also has thus far been in the relations with the GDR" (p 147). The book defines the Japanese ruling circles' yielding to the pressure from the Reagan administration

and the intention by segments of Japanese monopoly capital of turning that country into an "unsinkable aircraft carrier" as fire support for Washington's arms buildup and confrontation policy (cf. pp 14-15). At the same time the authors are emphasizing the fact that in other areas attempts to browbeat or blackmail Japan were rebuffed, as shown in Japan's rejection of the Washington embargo against the Soviet-West European gas pipeline business, in which Japanese firms also are partners. More than ever realistic circles of Japanese monopoly capital come to realize it is in their own interest to shape their relations with the USSR, the other socialist countries and, not last, the GDR in conformity with the peaceful coexistence principles.

As far as the GDR is concerned--therein lies the conclusion and logical consequence of the book--it will do all it can in developing the relations with Japan in terms of mutual advantage, for the good of both peoples, in the interest of peace and of using the great opportunities science and technology offer men in being fully opened up through peaceful and equitable cooperation between states and peoples (cf. p 147).

Written on the occasion of the 10th anniversary of the assumption of diplomatic relations between the GDR and Japan, the present study is an important contribution to exploring the history of them. It offers valuable suggestions for further exploring and presenting the GDR's international relations and even lends new impulses to those who are engaged in the wide field of these relations. The Japanese SIMUL publishing house has in the meantime included this book in its publishing program. On behalf of the consolidation of peace and the collaboration between states and peoples, one should hope for a broad circle of readers of it in Japan as well.

## Summaries of Major Articles

East Berlin EINHEIT in German Vol 39 No 5, May 84 (signed to press 10 Apr 86)  
pp 386, 479

[Summary of article by Hermann Poeschel, member of the SED Central Committee, department chief in the SED Central Committee; pp 396-403]

### [Text] Scientific-Technical Progress and Party Work

Proceeding from the basic economic requirements that determine the substance of scientific-technical work, the major reserves are being discussed for the needed efficiency and qualitative contribution by scientific-technical work. What are the priorities deriving from that for political-ideological efforts? In what way has the management and planning level been raised in scientific-technical work--particularly by central economic leads for the planning of scientific-technical work in the combines, by state orders and tasking workbooks--and what are the new questions that have to be resolved?

[Summary of article by Dr Karl-Heinz Goiczkyk, sector chief in the SED Central Committee, and Dr Edwin Schwertner, deputy department chief in the SED Central Committee; pp 404-409]

### [Text] Close Link Between Science and Production

A close link between science and production is among the potentials that are placing our comprehensive intensification on solid grounds and ensuring our dynamic development over the long haul. How are such relations to be organized with a sense of political responsibility? Which are the fine experiences we have had with science-production cooperation? And how can the younger generation of scientists be drawn into this process, advanced and challenged?

[Summary of article by Claudia Grafe, Dieter Liebing, and Heinz Willems, all graduate assistants at the Institute for the Political Economy of Socialism in the SED Central Committee's Academy for Social Sciences, and by Prof Dr Harry Nick, research section head at the same institute; pp 410-415. A full translation of this article is published in this report]

### [Text] On Guiding Scientific-Technical Progress in the Combines

Making the new phase of our economic strategy prevail calls for combining more effectively still in the combines' long-term conceptual work our scientific-technical progress with the market requirements and available resources. What are the starting points and chief elements in long-term conceptual work? How can we cope with economic and scientific-technical risks? What do stability and flexibility mean in the process of scientific-technical progress?

[Summary of article by Dr Klaus Seydewitz, general director of the VEB Chemical Fiber Combine "Wilhelm Pieck" in Schwarza; pp 416-419. A full translation of this article is published in this report]

[Text] Introduction of a Top Technology--Demonstrated by a Model

Approaching science and technology tasks with an eye to a maximum economy, ensuring plan discipline in R&D, modernizing an integrated production process that leads to a significant labor productivity boost, and challenging the working people's initiative and commitment for it, in short, successfully introducing top technology--what are the experiences we have had in all this? The model of the high-speed spinning technology in the VEB Chemical Fiber Combine, Schwarza, offers many suggestions for it.

[Summary of article by Prof Dr Harry Maier, deputy director of the Institute for the Theory, History and Organization of Science, GDR Academy of Sciences; pp 420-424]

[Text] Interdisciplinary Work in Forming Scientific-Technical Strategies

Scientific-technical innovations are the motor for our economic productivity growth. Which tasks arise for our strategic efforts in recognizing at a good time which innovations are auspicious and beneficial for our society? What experiences have come from the international efforts by natural and social scientists in working out scientific-technical strategies, and which inferences are to be drawn from that?

[Summary of article by Dr Juergen Leibinger, science associate of the section of socialist industrial management at the Technical University, Dresden; and Prof Dr Gerhard Speer, dean of the social science department at the same university; pp 425-430]

[Text] Scientific-Technical Progress in Bourgeois Economic Thought

Why is the bourgeois political economy unable to understand the social character and consequences of scientific-technical progress and the historic consequences of that process and derive effective economic long-range conceptions from it? What aims with respect to the use of science and technology does the conservative trend in bourgeois economics pursue through changes in the state monopoly regulatory mechanism? What role do conceptions of "social regulation" play in the monopoly-bourgeois theories on technical progress?

[Summary of article by Prof Dr Helmut Klein, rector of the Humboldt University in East Berlin; pp 431-437. A full translation of this article is published in this report]

[Text] On Advancing the Younger Generation of Scientists

The top capacities of tomorrow must come from the younger generation of scientists. What are the experiences of Humboldt University in ensuring the selection of the best qualified young scientists? What are the conditions that decide their planned and purposeful advancement? How can we do it better and faster?

[Summary of article by Prof Dr Heinz Stiller, head of the research area for geological and space sciences, GDR Academy of Sciences; member of the GDR Academy of Sciences; president, European Seismological Commission; chairman, Alexander von Humboldt Committee, GDR Academy of Sciences; and Prof Dr Conrad Grau, research head at the Central Institute for History, GDR Academy of Sciences, and member of the Alexander von Humboldt Committee, GDR Academy of Sciences; pp 438-443]

[Text] In Service to Science and International Understanding

Alexander von Humboldt (1769-1859), going on explorations to Latin America (1799-1804) and to Russia (1892), about which he published a great deal, made an important contribution to scientific progress and international cooperation. Geography was his main field. His best known work, "Kosmos," was based on public lectures through which he helped popularize that science. His achievements as a scientist, humanist and friend of the nations are part of our own progressive legacy.

[Summary of article by Prof Dr Max Schmidt, director of the GDR Institute for International Politics and Economics; chairman, Science Council for Imperialism Research; member of the EINHEIT editorial board; pp 444-450]

[Text] The Crisis in the Capitalist System and the U.S. World Domination Strategy

What are the roots and impulses of the confrontation and arms buildup policy the most aggressive U.S. monopoly capitalist forces are currently engaged in? This analysis lays bare the unscrupulousness, the insanity of that course, its main antisocialist and anti-Soviet thrust as well as the fact that the imperial drives pursued stop before no one, not even before the capitalist partners or competitors of the United States. The contradiction between the goals of this policy and the chances of their being realized.

[Summary of article by Werner Goldstein, graduate economist, foreign policy editor at NEUES DEUTSCHLAND; pp 451-456]

[Text] The "Land of Unlimited Opportunities" Today

Which capitalistic "basic values" and goals relate to the conservative economic policy course of the Reagan administration? What does the economic situation in the United States amount to in Reagan's fourth year in office? What is the fiasco of Reaganomics? What are the main thrusts and effects of the reactionary monopoly capital offensive against the working people?

5885

CSO: 2300/526

## VARIOUS TYPES OF WEAPONS RESEARCH DEFINED

Warsaw WOJSKOWY PRZEGLAD TECHNICZNY in Polish No 5, May 84 pp 191-192

[Article by Dr (Engr) Andrzej Cieplinski]

[Text] Weapons research is a specific, comprehensive and complex process for obtaining information on the characteristics, quality and state of weapons. It makes it possible to identify the weapons initially and determine their basic features during the study-and-analysis stage, assess these features during the course of the construction of the weapons and their initial operation, determine their actual effectiveness, reliability and stability during normal operation, and finally, become completely familiar with the effects of operation (analysis of the reasons for wear-out and aging) during the phase of withdrawing and eliminating specific models. The object of the research are the combat features (firing effectiveness, survivability, maneuverability), operational features (reliability, serviceability, servicing safety, human engineering), and also construction, technology, standards, modularity, etc. The results of the research are used to improve specific models and their organizational and technical surroundings and also to forecast developmental courses and tendencies.

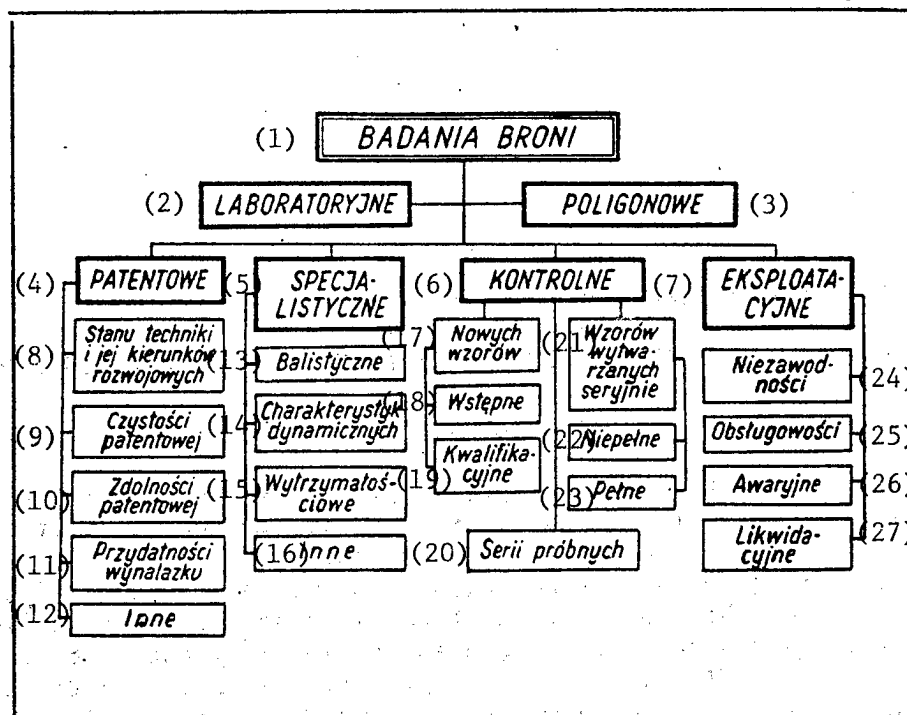
The methods used most frequently to solve complex research problems are instrumental (measurement), statistical-observation, evaluations by experts, controlled natural experiments, and digital experiments (computer simulation).

Because of the stages of its development, weapons research can be divided into four types: patent, specialized, inspection and operational. Depending on the nature, scope and place of research, it can be further divided into laboratory and field. An overall classification of weapons research is shown in the chart.

#### Patent Research

The basic purpose of patent research (which consists of searching and analyzing technical literature, mainly patent) is to formulate proposals which would form the basis for further actions relating to forecasts on the development of technology, protection of one's own original solutions, and assurance that newly applied solutions will not, either totally or in part, infringe on foreign exclusive rights. The purpose of studying the state of the art and its courses of development is to reveal the latest solutions and achievements and to predict the basic tendencies and courses of development in a specific field of technology

# Types of Weapons Research



## Key:

- |  |                              |
|--|------------------------------|
| 1. Weapons research                              | 14. Dynamic features         |
| 2. Laboratory                                    | 15. Resistance               |
| 3. Field   | 16. Other                    |
| 4. Patent  | 17. New models               |
| 5. Specialized                                   | 18. Preliminary              |
| 6. Inspection                                    | 19. Qualifications           |
| 7. Operational                                   | 20. Test runs                |
| 8. State of technology and course of development | 21. Serially produced models |
| 9. Patent purity                                 | 22. Incomplete               |
| 10. Patentability                                | 23. Complete                 |
| 11. Invention usefulness                         | 24. Reliability              |
| 12. Other  | 25. Serviceability           |
| 13. Ballistics                                   | 26. Failure                  |
|  | 27. Elimination              |

or a specific technical problem area. The results of this research are used to prepare plans for the development of technologies and to develop tactical-technical requirements and design assumptions.

Patent purity (absence of violations of law) is the ability to use the technical solution for commercial and industrial use in a way in which the foreign exclusive rights, obtained through the granting of a valid patent, are not infringed upon. The purpose of the research is to verify the patent purity of one's own patents or newly applied or updated technical solutions, and also to establish the scope of the protection of foreign technical solutions on specified sales markets. Based on the research, proposals are made as to starting up production of the technical solution, introducing the researched technical solution to a new sales market, or applying foreign technical solutions without the necessity of purchasing a license.

Patentability is a set of features which should be used to describe a given solution so that a valid patent can be granted on it. In accordance with the law on inventions now in effect in Poland, research on patentability consists of determining whether the invention submitted for a patent is:

- of a technical nature,

- new (an invention (product or process) is regarded as being new if, prior to the date on which preference for obtaining a patent is indicated, it has not been made available to the public in a manner which would reveal, to an expert, sufficient data as to its use, particularly through publication, open use, or presentation on public exhibition with no preference privileges),

- one which does not result in a manner obvious to an expert in the given field from a known, disclosed state of technology,

- suitable for repeated application,

- one on which, under the provisions of article 12 of the law on inventions, patents are not granted (the ban on issuance of patents pertains to inventions whose use would be in conflict with the existing law or social order, or inventions relating to sources of food, pharmaceutical sources, chemical compounds and nuclear-transformation products).

The purpose of the research is to determine the patentability of the inventions submitted, the correctness of granting a foreign patent, and the possibilities of its invalidation in the future. The results of the research are used to formulate proposals to grant or not to grant a patent on a submitted invention, proposals on the possibility of granting a compulsory license, obtaining a decision on the expiration of a given patent, or invalidating a foreign patent.

Studies on the usefulness of an invention are conducted to determine whether an invention relating to a specific field of technology can be applied with good results in one's own technical and economic activity.

Patent research also includes research for the purpose of detecting infringement on one's own patents (to determine whether one's own patent rights obtained in Poland or abroad have not been infringed upon) and research on the patenting and licensing policies of foreign firms (to obtain information which could be used to predict the firms' competitive intentions and to gather data on the competitors' methods of operation).

### Specialized Research

Specialized research is aimed at experimentally verifying the results of theoretical work in the fields of weapons construction, ballistics, firing theory, etc., at solving fragmentary studies related to the design of new armament models, at evaluating particular weapons mechanisms and problems, and at evaluating the correctness of the operation of proposed models of weapons.

Ballistics research pertains primarily to the experimental solving of the basic task of interior and exterior ballistics, i.e., measurements of pressure in a manometric bomb and the cartridge chamber, and the velocity of a projectile in the muzzle and the flight path.

The concept "dynamic characteristics of weapons" is a broad concept, encompassing quantities describing the motion of a weapon or its particular elements (slide, breech lock, rotating band, recoil mechanism, etc.) under the influence of the forces acting upon it. Under this research we include measurements of displacements, velocity, acceleration and force, producing weapons motion.

Resistance research is conducted for the purpose of determining a pattern of stresses and strains which would make it possible to estimate strain, to check the load capacity, to optimize the shape, so that a given element, at a minimal weight, would operate correctly during the assumed period of time. The resistance testing methods used most frequently in weapons research include brittle coatings tests, electrical resistance strain gage tests, similarity tests, photoelasticity, X-ray, holographic interference, and modeling studies.

In addition to basic research, the specialized research group also includes studies to determine weapons stability, distribution of temperature fields in elements of weapons exposed during firing to thermal reaction, shock wave reaction, shell-ejection velocity, etc.

### Inspection Research

Depending on the stage of weapons production, these studies pertain to new models (prototypes), test runs, and serially produced models (final). The purpose of studying the new models is to determine the compliance of the weapons model being studied with tactical and technical requirements, to assess their operating characteristics, to detect possible defects, determine the reasons for the defects and make proposals on necessary corrections. The results of research on prototypes are used to issue announcements permitting production of test runs of a given weapon. Test-run studies are used to evaluate the quality of the test-run production and to confirm the ability of obtaining technical and operational characteristics determined during research on the

prototypes, to verify that the defects which appeared during prototype-testing were removed in the production run, to investigate problems dealing with the technology of construction and the possibility of making corrections, relating thereto, in the technical documents, and also to verify the correctness of the general instructions, descriptions and documentation which may be used in the army. Based on results obtained from the test runs, decisions are made on adding the researched weapon to military armaments.

Tests of weapons produced serially cover an assessment of the quality of weapons production and the degree of compliance with technical documentation, verification of the reliability of the operation of mechanisms and equipment, and verifying the feasibility of obtaining technical and combat-operations characteristics established in WTT [expansion unknown]. Based on the results of the research, a decision is made as to the usefulness of the produced batch of weapons to the army.

#### Operational Research

The purpose of operational research is to optimize the process of equipment operation, and in particular: to plan the use of the equipment, to assess its reliability, to plan the servicing process, to determine the list of spare parts, and to develop an inspection program.

Reliability is a set of properties which determine to what degree the weapon can be operated under specific conditions. Reliability tests normally pertain to:

- nonfailure, i.e., the capability of the weapon to maintain its worthiness (an undamaged state) in a specified time interval and under specified operating conditions,

- durability, or life, i.e., the capability of the weapon to perform tasks in accordance with its designation, with emphasis on the following types of life:

- physical, ensuing from the processes of wear and physical aging,

- economic, ensuing from the processes of economical consumption caused by the growth of operating costs and the development of newer types of weapons,

- combat, ensuing from the processes of combat consumption (as a function of detectability on the field of battle, the kill probability, and susceptibility (vulnerability to destruction)).

Research on the weapon's technical-maintenance capability (ability to be serviced), normally pertains to its:

- ability to be diagnosed, i.e., the degree of the weapon's adaptability to the process of inspection of its condition and localization of damage,

- ability to be prepared, i.e., the degree of the weapon's adaptability to the process of preparation for use, storage, or transport,

--restorability, i.e., the degree of the weapon's adaptability to the process of restoration of technical usefulness through conservation, prevention and repair.

In addition to studying the operating characteristics of weapons, research of a somewhat different nature is conducted in the area of operations. These are failure and elimination tests. The purpose of failure research is to determine the causes of failure in order to eliminate or reduce the effects of similar damage in the future. Based on failure studies proposals of a forecasting nature are made in relation to identical or similar types of armament. Elimination research is conducted to determine the boundary limits for the wear of particular parts of the weapon. The basic method of conducting elimination studies is an experiment which consists of a further post-servicing use of the weapon, observation of effects and constant measurement of the physical state of the basic elements. Based on these studies recommendations of a forecasting nature are made, pertaining to construction, technological and operational changes.

9295

CSO: 2600/1017

DECREE ON PATRIOTIC WORK ACTIONS BY YOUTH

Bucharest BULETINUL OFICIAL in Romanian Part I No 39, 8 May 84 pp 1-2

[Council of State Decree on conditions for carrying out projects, through patriotic work actions, by organizations of the Union of Communist Youth and the Union of Communist Students Associations of Romania]

[Text] With a view to fulfilling tasks which are assigned to the Union of Communist Youth and the Union of Communist Students Associations of Romania concerning the participation of the youth, through patriotic work actions, in carrying out projects for the economic and social development of the country,

The Council of State of the Socialist Republic of Romania decrees:

Art. 1 -- Socialist units, at the request of the organization of the Union of Communist Youth or the Union of Communist Students Associations of Romania, can entrust these groups with the execution of projects to be realized through patriotic work, under conditions stipulated in the present decree.

Art. 2 -- The patriotic work actions are organized according to the principles of worker self-management and economic-financial self-administration.

In order to achieve economic-financial self-administration the Union of Communist Youth and the Union of Communist Students Associations of Romania will take the necessary measures to ensure that the patriotic work actions have expenses covered and profits secured according to the income realized.

Art. 3 -- The patriotic work actions are carried on under the direct leadership of organizations of the Union of Communist Youth or of the Communist Students Associations of Romania, within the framework of national, district, and local worksites for the youth, patriotic work camps, as well as other activities of a general nature, for the realization of investment objectives in industry, agriculture, transportation, housing construction and municipal projects, the carrying out of production, research, and design projects, providing services, the execution of work in the field of agriculture and silviculture, the collection and introduction of reusable material in the economic circuit.

Art. 4 -- The conditions for the realization of projects stipulated in Article 3 are established in the contracts which are concluded, as appropriate, between the county and the Bucharest Municipality organizations of the Union of Communist Youth or the organizations of the Union of Communist Students Associations in the university centers and the beneficiary socialist units.

For the national youth worksites, the contracts are concluded between the Central Committee of the Union of Communist Youth and the ministries or other central organs.

Art. 5 -- The socialist units are obligated to provide to the youth organizations the technical-material conditions and specialized technical assistance necessary for the execution of works entrusted to them, for observance of norms of labor safety, norms for preventing and extinguishing fires, to put at the disposal of the youth, under conditions established by the law, the necessary work and protection equipment, and to instruct them in regard to their use.

Art. 6 -- The socialist units which conclude the contracts, under conditions of the present decree, have the obligation to pay the organizations of the Union of Communist Youth or the Union of Communist Students Associations of Yugoslavia, as appropriate, the equivalent value of the labor included in the prices of work carried out or of objectives realized, calculated according to the law, as well as to pay for materials collected, at prices in effect for the socialist units.

The products and services executed with the means of the organizations of the Union of Communist Youth and the Union of Communist Students Associations of Romania will be paid for at the prices and fees in effect for the socialist units.

The sums representing the equivalent value of work carried out by the youth within the framework of patriotic work actions are transferred to the contracting organizations of the Union of Communist Youth and the Union of Communist Students Associations of Romania from the planned remuneration fund of the socialist units or from the remuneration fund, without quarterly development. For activities for which the remuneration fund has not been planned, payment for the equivalent value of the work will be made from funds scheduled for their financing. From this sum, expenses will be paid which, according to the contracts agreed upon, are the duty of organizations of the Union of Communist Youth or the Union of Communist Students Association of Romania.

For the patriotic work actions carried on by the pupils and students, the youth organizations will receive from the socialist units the equivalent value of the labor or of the materials collected, under the conditions stipulated in the preceding paragraph.

Art. 7 -- The income realized by the youth organizations through patriotic work actions will be used for the self-financing of the activity of the Union of Communist Youth, especially for financing the organization of national, district and local work sites and patriotic work camps, for the development of political-educational, cultural, sports, tourist or recreational activities, as well as for providing incentive to the youth by sending them on excursions and to rest camps, in accordance with appropriate regulations.

Art. 8 -- The organizations of the Union of Communist Youth and the Union of Communist Students Associations are obliged to lead and conduct patriotic work actions, to collaborate constantly with the socialist units for the purpose of carrying out projects on time and under proper quality conditions, as well as ensuring increased economic efficiency.

Art. 9 -- At the request of the Central Committee of the Union of Communist Youth and of the county and Bucharest Municipality committees, the socialist units will assign or transfer skilled workers, technical and specialized cadres, especially the youth, under conditions of the law, to socialist units where youth worksites are organized.

Art. 10 -- Council of Ministers Decision No. 2198/1968 on the establishment of the fund for rewarding youth who perform voluntary-patriotic work in the silvicultural and agricultural sector, published in BULETINUL OFICIAL, Part I No 130 of 5 October 1968, as well as other contrary provisions, is abrogated.

Bucharest, 7 May 1984  
No 151

NICOLAE CEAUSESCU  
President of the Socialist Republic of Romania

CSO: 2700/209

## YUGOSLAVIA

### MULTICANDIDATE ELECTIONS, OTHER ELECTORAL CHANGES URGED

Belgrade NEDELJNE INFORMATIVNE NOVINE in Serbo-Croatian No 1738,  
22 Apr 84 pp 18-20

[Article by Stevan Niksic: "The Electoral System; Will It Survive?"]

[Text] Day after day, one hears with increasing frequency the prediction that the existing mechanism for selecting delegates and political officials "will not survive" the present term. One can add to this the ever-increasing number of voices in favor of cadre reconstruction at all levels and in all environments.

Again there is the inexact political overview in the press -- reporting last week on a conversation between the president of the Federal Conference of the SAWPY, Jovan Dejanovic, and some foreign journalists, the daily papers reported that Dejanovic, in responding to a question of a correspondent from the Reuters news agency, allegedly said that in elections for members of the Presidium of the SFRY "it was not possible to nominate more than one candidate."

Fortunately, people in Yugoslavia are sufficiently politically aware not to believe that such an experienced politician, in such a prominent office, could say something like this. Everyone knows that the Yugoslav Constitution does not limit the number of candidates for any public office in society. And, the current program document of the LC, resolutions of the 11th and 12th Congresses, affirm the position (adopted at the explicit proposal of Comrade Tito) that for all offices, even the highest, there could be a greater number of candidates in contention.

Several months ago, shortly before the beginning of the electoral procedure for selecting new members of the Presidium of the SFRY, the same question was posed in a discussion at the Federal Conference of SAWPY: Is it possible during elections for members of the Presidium of the SFRY to nominate two or more candidates for the same position? In principle, the answer was positive. In other words, nowhere is it written that the requirement is to have only one candidate. However, on this occasion, the conviction was widespread that this question -- one or more candidates -- was "not of essential significance."

## Something Must Be Changed, But What?

First of all, new members of the Presidium of the SFRY have been chosen in all eight federal units. All that remains is to perform the final ceremony in the federal parliament; as is known, nowhere, from the opening discussions concerning the candidates for members in the future Presidium, is there mention of more than one name for each of these offices, and the names mentioned were of those candidates who were ultimately chosen. The situation is the same with regard to candidates for the majority of offices written about recently in protocol information in political chronicles. The rare exceptions -- like those in Zagreb where for each of the highest offices in the city two candidates are listed as well as in the Socialist Republic of Croatia, where two candidates are listed for the position of president of the parliament -- serve today as a legal, political curiosity.

At the same time, the majority of citizens, according to a recent study of the Institute for Political Studies in Belgrade, and the results of many similar studies in Ljubljana and Zagreb, seek at least partial, if not fundamental, cadre changes in society and they support election procedures in which as a rule, the possibility for a choice between several candidates is provided.

In frequent discussions of Yugoslav political scientists and other experts on the political system as well, there is increasing agreement that something must be changed in the present election process. The Yugoslav political scientist and member of the LCY Central Committee, Najdan Pasic, the political scientist most frequently cited in the public media, asserts: If there is something in our system which has not been adequately worked out and which has been distorted by the bureaucratic process in practice, it is the electoral system and the manner of recruiting cadres. "It is more difficult, however, to reconcile opinions on what to change and how to change it, and how deep these changes must be to rend the fabric of the existing system.

### Wary of the Elements

Day after day, then, one increasingly gets the impression that some of the electoral mechanisms which are presently in effect, especially present practices that will not be able to survive this political term. And after all, if this were to happen, it would not be anything unusual. Between 1945 and 1982, elections in Yugoslavia have been carried out in accordance with different regulations each time. During this time, 345 laws have been passed which regulate this matter, not counting statutory and other documents of social-political organizations, social agreements on cadre policy, etc. Various solutions have been tested and quite a bit of experience has been acquired. And a solution without defects has not been found -- the way one now assumes it will be -- a solution which would be sufficiently democratic and correspond to the needs of the system of socialist self-management in everything, as well as of the multi-ethnic character of the Yugoslav community and its federal structure.

The president of the Republic Conference of the SAWP of Serbia, Zika Radojlovic, with whom we conversed on this subject last week, thinks that the next delegate elections should not be anticipated with this system. In other words, he is an advocate of certain changes because, he says, the previous elections indicated that "some operations are superfluous" in the procedures. However, Radojlovic notes that a decision about this matter, whether or not to change the procedures, is a matter of concern not only for SAWP.

The numerous critical remarks, which can be reduced to the assertion that the present system is not democratic enough, and that the role of the so-called coordinating bodies is controversial within this system, he nevertheless regards as exaggerated. This is also indicated by the brief polemics at the recent Nominating Conference of the SAWPY of Serbia, in which there were speeches about candidates for the highest offices in the republic and federation.

A delegate of the Veterans' Federation, Zara Jovanovic, said on this occasion that the general public expected more significant innovations in the election procedure. Instead of this, according to her evaluation, narrower coordinating bodies have appeared. In this regard, she said that people have hope and patience in the expectation that society as a whole, and above all the LC, will begin to work more effectively in overcoming the critical situation. However, it seems to her that this hope is fading somewhat and that "even among the activists a feeling of powerlessness and resignation is appearing."

#### Controversial Points

Radojlovic responded to this by saying that the expected innovation in the electoral system could not possibly be brought about because there was not enough time for this. The Republic Conference of SAWPY, he said, had planned to devote some time to the entire process of execution of cadre policy in the republic, but for now had refrained from doing so expecting an announced analysis of the political system which will present the opportunity to discuss both the electoral system and cadre policy as segments of the whole political system. "Of course, we have not said the final word on the democratization of our cadre policy," Radojlovic noted, adding that in his opinion, one nevertheless cannot accept the appraisal that "some narrow groups and coordinating bodies have again resumed operations."

Asked to explain in detail for NIN the point of view he has supported, Radojlovic said that "the easiest things to talk about the democratization of cadre policy, but a practical decision is not easy to make because this requires thorough analyses which, unfortunately, we do not yet have." "We must be careful that tomorrow, when this has been defined, we do not succumb to the elements and set limits which would provoke effects opposed to those which are desired," he said.

That which is understood under the concept "electoral system" is, as a rule, a collection of entangled procedural and other regulations, even in countries which have a political system simpler in appearance than what the Yugoslav Constitution defines as the delegate system. On the other hand, however, Yugoslav experience over several decades indicates that misunderstandings are most often centered on only two controversial points: an open or closed list of candidates (one or more candidates) and indirect or direct elections.

One might say that in the first case there is, at least in principle, rather less controversy. As mentioned earlier, the constitution does not prevent, and political-program documents recommend, that the number of candidates not be limited in any election. But in political practice, behind the evaluation that this "is not an essential question," it is not hard to distinguish serious resistance to this requirement.

Belgrade sociologist Sergije Pegan claimed in a recent study that two-thirds of the people (66 percent) are for more candidates on all lists, regardless of whether it is a matter of electing delegates or officials. However, this concept, according to the study, has significantly less adherents among the professional social-political workers and officials polled, as well as among older people. Therefore, this researcher concludes that regarding those personally and directly interested (and the social group mentioned is certainly not without influence in the election procedure), one can speak of "protecting position," "fear of competition," "inclination towards hierarchical investiture," and "bureaucratic consciousness," while regarding the smaller number of people who are not personally and directly interested and who are opposed to having a greater number of candidates, one can speak about certain forms of "stereotyped conceptions".

#### One or Two

Mijat Damjanovic, professor at the department of political science in Belgrade, notes that the lack of an option between two or more candidates has become the rule in recent elections of the Assembly. He concludes, judging by the results of the knowledge, interest, participation, and influence of broad strata of voters in the electoral, social, and political process, that the claims of a developed, mature democracy still remain challenged under conditions like those in our country, and in many aspects, are unattainable. A remark of his colleague (from the same department), Professor Milan Matic, is interesting. He said that an impression has recently formed within the public concerning somewhat increased influence "from the side" on developments and results of elections. Matic cites studies done during the Assembly elections of 1982 which showed that the majority of citizens polled think that the most decisive influence on nomination for republic assembly and the Federal Assembly is wielded by cadre-coordinating bodies (54 percent), then organs of social-political organizations (26 percent), nominating conferences (26 percent), and finally, meetings of working people and citizens ... Some citizens point out that informal groups have the greatest influence on nomination.

In other words, questions of whether an "open" or "closed" list of candidates will be established during some elections, whether more people will be nominated for an office than are to be elected, are not "systemic" in any way, but as a rule they are the consequence of specific circumstances, and even more frequently the consequence of a specific power relationship.

Recently, a regular change in administrative offices has been under way (in accordance with the rules of the 1-year or 2-year term) in various forums of the LC (even in forums of other social-political organizations); in Nis -- to cite only one of many similar examples -- the newspapers have described in detail a dilemma in the leadership of the local Inter-Opstina Conference of the LC where they were not able at all to decide which of two proposed candidates to nominate officially for president. Since both candidates, it would seem, had their ardent supporters, a third candidate was ultimately nominated. And everyone agreed with this, thinking probably that the only logical solution is that there be only one nominee for this office. Our NIS correspondent, Miroslav Cocic, says that none of the participants in this debate even mentioned the possibility that, conceivably, two, three, or more, candidates be nominated by the conference delegates, and that this might provide them the opportunity to choose the future president with their votes.

We talked with the president of the City Conference of the SAWP of Zagreb, Drago Flego, about a completely different example. Although the proceedings have not yet been completed -- because they still must go through a few more stages (and in each stage there is the possibility of eliminating a candidate) -- it has already been announced there that two candidates each are nominated for president and vice president of the city and president of the executive council of the city assembly. In the very beginning of the proceedings there were, of course, a significantly greater number of candidates but some have been eliminated or have themselves given up in the meantime. We were interested in knowing how the candidates, whose names and pictures appeared in the newspapers, reacted to this situation, which is still a bit unusual in our society. Flego says that they reacted quite normally, that preliminary conversations had been carried out with them, and that, giving their consent, all had expressed how "they were honored to be nominated for such responsible offices, regardless of which one of them was ultimately chosen."

#### Time for Cadre Reconstruction

The second current dilemma, direct or indirect elections, is usually given an academic, doctrinaire character in discussions of principle, although it is clear that in this case, in the background, there are completely practical, political implications.

In a recent discussion on this topic at the Federal Conference of SAWPY, Ciril Ribicic, president of the Social-Political Chamber of the Socialist Republic of Slovenia Assembly, stated that "considerations along the lines of broadening direct elections... involve passing over the principle of education and work of the assembly, established by the

Constitution." Quite a few Yugoslav political scientists today speak of the opposition between the concept of direct elections (which, it would appear, has its share of supporters), and the logic of the delegate system. The problem lies in the fact that in practice the delegate system (as pointed out by Jovan Djordjevic, an academician who is the senior Yugoslav political scientist, reminding one of the criticism which took place at the time of the French revolution when this concept appeared for the first time) is comprehended only as an electoral principle and is reduced exclusively to the level of indirect elections. But the delegate system makes sense only if it is understood as a specific relationship, and not as an electoral mechanism.

#### Good Comments

Ivan Siber, from the department of political sciences in Zagreb, who has studied the motivational aspects of elections in Yugoslavia for years, points out with good reasons that the majority of people do not understand the existing election procedures, and he warns that the interest of citizens during the last assembly elections in 1982 declined noticeably compared to earlier elections. Therefore, his suggestion sounds quite reasonable; he suggests that a way out of this seemingly closed circle lies in simplifying the system to the extent that its fundamental logic is not endangered. His colleague, a professor in the same department and an expert on recent Yugoslav political history, Dusan Bilandzic, stated his opinion last year at a discussion at the Marxist Center of the Central Committee of the LC of Serbia -- citing in the process some still unpublished documents -- that the decision about introducing the present form of the delegate system with indirect elections was really made at a time when it was determined that the earlier system made it possible for undesirable candidates to be elected.

Whatever the case, the Presidium of the SFRY, in its report which was recently sent to the Federal Assembly, stated that critical remarks directed at the manner of selection of cadres for responsible self-management and political functions in society are made with justification. Because of the weakness of social-political organizations, working people still do not have a decisive influence on the nomination of candidates and on elections to the responsible offices in society. We have not adequately provided for the real interests of the working class to be represented by those who have gained its confidence with their work. This points to the need for organized social forces to occupy themselves to a greater extent in the execution of cadre policy and in making our electoral system more democratic. The present time requires cadre reconstruction at all levels and in all environments, the SFRY Presidium concluded.

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NAJDAN PASIC DISCUSSES PROBLEMS IN ECONOMIC-POLITICAL SYSTEM

Belgrade KOMUNIST in Serbo-Croatian 11 May 84 pp 8-9

[Interview with Dr Najdan Pasic by Dragan Kabadajic: "How To Begin To Speak With One's Own Voice"; date and place not specified]

[Text] A study by Dr Najdan Pasic entitled "Interesi i politicki proces" [Interests and the Political Process], published by the "Komunist" Publishing Center, has recently come off the press. This book is based on the conclusion derived from theory that speaking about politics signifies speaking about interests. The entire "procedure of proof" is conducted in three parts: the first contains an analysis of political doctrines in which the interest component is respected in one way or another, from Plato, via Marx and Engels, to contemporary theoreticians (a historical review of differing conceptions of interests); in the second Pasic gives his own theoretical view of interests; and in the third part he subjects to analysis the political system of socialist self-management from the standpoint of expressing, confronting and synthesizing interests.

Some of what seem to be the most interesting research results which Professor Pasic has arrived at in the last part of the study were for understandable reasons the immediate occasion for this interview.

[Question] Which interests have at the moment the greatest strength in the process of political decisionmaking (management of social affairs)?

[Answer] By the nature of things the interests of those who are in a position to decide about the surplus of social labor, about disposition of the resources for social reproduction, have the greatest strength. Accordingly, to provide a specific answer to that question we need to examine what is actually happening with respect to management of the resources for expanded reproduction, i.e., who is controlling that entire process.

Perhaps one of our key problems is precisely that the constitutional supposition of the "disposition" of the right to manage the means of production has not been realized, since associated labor is by no means in that situation afforded it by the constitution. The real balance of power is still unfavorable for associated labor, which at this level of economic and technological integration is highly dependent on centers of political decisionmaking. In

that respect the situation has not undergone qualitative change from the situation that we had before adoption of the new constitution. It is just that the distribution of social power is different. Now many of those powers of government which were the monopoly of the federal state have passed over to political centers in the republics and provinces, by contrast with the expectation that the principal result of the constitutional amendments would be that power would be redistributed to the advantage of associated labor, i.e., affording it greater opportunities for influencing centers of political decisionmaking.

### The Strongest Interests

[Question] In our recognition of what are now the strongest interests, can we say that group-ownership interests are overwhelming?

[Answer] We can if we take a somewhat broader view of this, since it is not exclusively a question of group-ownership tendencies and the aspirations of individual organizations of associated labor or of other individual small groups, but also of group-ownership tendencies of individual sociopolitical communities, that is, of their administrative and executive bodies. After all, here again a quasi-proprietorial attitude and behavior toward social property is established. Opstinas, for instance, divide up the organizations of associated labor which they have in their jurisdiction into "their own," which they back, but also those which are there, but are related to some other sociopolitical community. This, of course, also conditions the behavior of the work organizations themselves over which a certain political patronage extends. A certain large enterprise, then, behaves not only as a self-managed organization, as a producer of commodities on the market, but also as an organization recognizing the political sovereignty of a particular sociopolitical community, and it follows the policy and directives of that community. Often it follows that logic of territorial exclusiveness, accepts that position which it has, since it depends on the relevant centers and must secure their support. This generates the difficulties for our self-management integration, since it has a hard time breaking through those borders which are set up by the "regions" and group-ownership claims of the political centers.

Finally, when interests are highly institutionalized and when individual entities acquire political monopoly in the representation of particular interests, then this is also a source of great power for those who head such entities. For instance, if a body appropriates to itself the right and in practice is in a position to hold a monopoly on expression of such important interests as, for example, the interest of a nationality, this gives it immense political power. These are very strong political credentials. People working in those bodies have what I might call both a spontaneous and an instinctive aspiration to establish a monopoly in the representation of partial interests. The social power of our bureaucracy is built upon various monopolies of representation of partial interests, which to a high degree are institutionalized, institutionally organized and protected. This is a very significant phenomenon.

There is a danger in our country which so far has not been taken sight of sufficiently that the pluralism of interests in self-management might slowly begin to turn into a new kind of political pluralism: the pluralism of institutions representing interests, institutions whose mutual ties are on the corporate principle, and the decisions are made on the basis of agreements between the elites of those corporations. So instead of decisionmaking through delegate assemblies at various levels, we get a situation in which the most important decisions are made outside the delegate system and in certain extraconstitutional institutions. And they (when I say "they" I am referring to their elites) enter into mutual relations and political bargains behind the screen of the delegate assemblies. In actuality various political issues are resolved which often have key significance. And then the delegate assembly figures here only as someone who is supposed to grant some legitimacy and adopt what has been prepared in this manner and the case already decided.

### Symptoms of Crisis

[Question] Can we then provisionally signify the serious problems our society has gotten into as a crisis caused by the impossibility of expressing the so-called general working class interest in the sphere of the political system, but also caused by various "obstacles" which also prevent other interests (individual, particular and general) from achieving mutual harmony?

[Answer] Yes, that is absolutely so. As a matter of fact, some alternative forms for the aggregation of those interests, to bring them into harmony, and so on, have to be found. That is why the power of institutions "representing interests" has become stronger as independent forces, as has that of entities independent of the authentic interests of the working class, which because of the relations we have referred to are unable to break through as the decisive force and influence.

This is the essence of the manifestations of crisis in our political system. In that light it is evident how closely the issue of economic stabilization is related to the questions of improving and reforming the political system. After all, neither the economic reform alone in the sense of carrying out the economic stabilization, nor the reform of the political system alone can yield results--neither can make progress without the other. It would be a great illusion to believe that one can be achieved without the other.

[Question] The integration of associated labor in society which was projected and proclaimed by the constitution is not being achieved in practice. In your book you refer to this as the "most serious symptom of crisis in our present phase of development." What are the key barriers which have to be removed?

[Answer] To what I have already said I would add that the constitution creates in principle certain prerequisites for the encouragement and development of integrated structures conforming to self-management. I am referring to the fact that the constitution guarantees the uniform foundations of the political system, the equal position of the workingman and the citizen and of

his organization of associated labor throughout the entire economic space of Yugoslavia. It prohibits any form of restoration of state capital and prohibits any form of geographic encapsulization by administrative means, and so on. However, those things still exist in practice, and within the legal and political system itself a number of barriers have arisen which make it more difficult for associated labor to integrate. For instance, if the same self-management acts are differently evaluated, so that in a certain republic or province they are proclaimed not to be in conformity with the constitution and laws, while in the other provinces or republics those same statutes are considered constitutional. Then that creates large, sometimes even unsurmountable, obstacles to the creation of complex organizations of associated labor, for the actual linkage through self-management over the borders of the republics and provinces, sometimes indeed even across the borders of opstinas.

We insist on the formulation that the republic is a state and that it has all the attributes of a state. One of the basic attributes of every state is, of course, the establishment of taxes. In our country the right to establish the level of taxes has been given to the republics and provinces, but it is also foreseen and prescribed that the republics and provinces shall reconcile their tax systems by mutual agreement, so that differences among them do not jeopardize the basically equal position of associated labor. However, these agreements are very difficult to achieve, and over lengthy periods of time they are not signed at all. If they are in fact adopted, it is not sufficiently seen to that the signatories who have assumed that obligation do actually carry out what they have signed.

So, for the sake of illustration, these are concrete obstacles which would have to be removed if we truly want to open up space for the free movement of labor, goods and services throughout the entire territory of Yugoslavia. This, then, is what is necessary to give rise to concrete common material interests, to bind together the working people from different republics and provinces.

#### Integration and the LC

[Question] Do all the institutional and normative prerequisites exist for integration?

[Answer] I think they do not exist and that that is a part of the problem. In view of the specific conditions in which they have been placed, the working people are not oriented toward resolving the problems mainly through rational husbanding of resources, rational management of resources for expanded reproduction, but rather toward exerting political pressure on "their own" bureaucracy at the opstina and the republic level and toward obtaining for themselves privileges and favors in the sense of the relevant administrative measures, in the sense of the relevant economic policy measures, and so on.

If political institutions have the dominant position relative to consolidated labor, as they become more and more independent, then what I refer to in the book as "secondary interests" become more and more important. (These are interests related to the institutions themselves, to their position in the

system. These are, in other words, the interests of those who make up the "personnel substratum" of those institutions, who speak and make decisions in their name.) This is related to what I previously said about the tendency for us to have political pluralism of the interests of representative institutions.

[Question] In the complicated processes of the democratic integration of interests in self-management the League of Communists has the role of an indispensable factor for guidance and synthesis. How is it performing that role?

[Answer] Not particularly successfully in this phase of development. Perhaps less successfully than ever before. It is becoming evident that the LC is excessively burdened with operational and managerial functions, and this is felt in the activity of all its organizations--especially of the higher forums. Here the League of Communists is taking over the role of an elder partner relative to the other public organizations. In any case interests and activities are not harmonized directly through the delegate mechanism and through the involvement of the membership of the LC within the bodies of self-management and delegate bodies, but through an understanding between the forums of sociopolitical organizations and the agencies of sociopolitical communities.

I think that that is one of the reasons for the widespread passivity of the membership. There has now begun to be more open and more critical discussion of this. This means that if the LC is involved in the process of political decisionmaking only in the form of partnership relations which are established between those agencies and organizations, which have themselves taken over the role of representing particular interests, then obviously there is no room here for initiative or action by the rank and file of the party. What business does the LC have conducting any separate negotiations with an executive council or with the Youth League and with pursuing certain interests here? Each of these organizations and institutions has its own role in the system and it should be performed within the entirety of that system. This means that the LC should operate through the sociopolitical chambers of the delegate assemblies, but also directly at all points where the working people are making their decisions on the basis of self-management through the delegate system. Here again there is a field for struggle to affirm the long-term interests of associated labor and to protect the position of the workers, but not in any political forums or tribunes outside that system.

[Question] To what extent is the LC performing its role as an ideological catalyst for the outstanding issues which are raised and concerning which there are controversial and indeed even opposed interpretations? Let us take what you have just mentioned, the political system. I am thinking of the clearing up of ideological controversies: What is to be added to, how much is to be added, on what segments should there be changes or reworking, to enumerate just part of it?

[Answer] At the altogether concrete operational level it is very difficult to harmonize interests if the organization of the LC is itself under the pressure of those structures of the republics, the provinces or the opstinas,

which are supposed to handle those matters on an operational basis. If the LC does in fact become the representative of certain partial interests, that is a most dangerous matter. Right now it is evident that this has actually occurred, and we need to accomplish an abrupt change of direction.

Where the LC ought to intervene vigorously, that is, to break up the monopoly of the executive bodies in the republics and provinces, which are expressing the interests of those particular units, so as to authentically guarantee that associated labor can begin to speak with its own voice and not just through those imposed tutors. Those bodies do have a place in the system and certain interests must in fact be pursued through those bodies in an appropriate way, but if this is turned into an absolute monopoly on the part of those bodies, and the LC only contributes to that in that it gives its political endorsement, its political power, to those demands, then it is obvious that it will be very difficult to harmonize interests.

#### Dynamic (Dis)harmony

[Question] You speak in the book about the indispensable need for dynamic harmony between the new production relations and the political system. What have your analyses of that relation shown, and on that basis what are the weakest links in the political system which ought to be added to, reassessed, or replaced with new solutions?

[Answer] That harmony has obviously not yet been established. It can be established only by linking the economic stabilization program to the corresponding reforms in the political system. The economic stabilization program will not be capable of realization by itself without changes in the political system. Without, for example, ensuring that all the organs in that system are more effective in carrying out their functions established by the constitution. The great slowness and uncertainty have to be eliminated in the process of decisionmaking, the question of the responsibility of all decision-makers has to be dealt with precisely, the immense amount of normative activity of the state through laws and the like have to be diminished.

These are all conditions for associated labor to free itself of excessive tutelage. But we should also add to this what has been envisaged (in this regard) by the economic stabilization program: the operation of objective economic laws and the unified Yugoslav market. Unless we see to it that associated labor truly makes decisions about the resources for reproduction, the reform in the political system will not be capable of realization either. After all, then it is not possible for the real interest of associated labor to be expressed, which is something we are counting on as the basic driving force in our system.

There has to be critical analysis (and in fact this is now being done within the working group which was formed in association with the Federal Council for Problems of the Social System) of everything that contributes to and strengthens the dependence of the position of associated labor relative to centers of political decisionmaking, which is why associated labor has such small actual independence and cannot follow the logic of its own long-term

interests. Interests which orient it toward efficient husbanding of resources for social reproduction and also toward direct establishment of linkage on a self-management basis with other organizations of associated labor.

We must take the point of departure that the constitution offers the basic principles and commitments, but that it has not been sufficiently stated in concrete terms in certain of its segments, even though we do have a very lengthy constitution. The question of responsibility, for example, has to be dealt with much more clearly. There has to be a definite statement as to the concrete content of that responsibility and the manner and mechanism for establishing it. It is not enough to say that the republics and provinces are responsible for their own development and for the development of the Federation as a whole, but it has to be set forth what the content of that responsibility is. The same applies with respect to holders of political office. There are quite a few provisions in the constitution which have nevertheless remained at the level of moral precepts and for that reason the question of whether or not they are binding is not altogether clear. Accordingly, this needs to be elaborated in concrete terms in legislation. The constitution need not be amended to achieve this. This may even be the matter for a statute, or it may indeed be a matter for appropriate political action.

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